

Original Correspondence.

PRACTICAL IRON MANUFACTURE.

SIR.—My attention has been called to a reprint of an able article on this subject from the "Iron Trade Review," which appeared in the *Mining Journal* of April 27. This paper contains much valuable information, more particularly on the composition of the various substances used for fettling puddling-furnaces. The writer thoroughly understands the subject on which he writes, and evidently not only understands the practical details of the process of puddling, but the chemistry of the process. I write now not to correct any mis-statement of the writer of this paper, but to point out a prejudice operating against my interests, arising from the adoption of the term "Blue Billy," as a generic designation, instead of, with the particular limitation applied to it by "J. A. J.," a residue from pyrites used in manufacturing sulphuric acid. The analysis given can only refer to the residue left by burning the pyrites from the coal measures, or from Belgian or Westphalian pyrites, as all Spanish or Portuguese pyrites leave a residue containing more or less copper. About six years ago, when I commenced to treat the residual burnt ores produced from Spanish and Portuguese pyrites for copper, and aimed at producing a wonderfully pure peroxide of iron, free from sulphur, in a state of coarse powder, and with a very low percentage of silica, I found that the substance I proposed to sell as "purple ore" was immediately nicknamed by the Staffordshire puddlers "Blue Billy" (and that name in some districts remains with it yet), though no more resembling it in physical appearance or chemical composition than chalk resembles cheese, as the following analysis will show:—

J. A. J.'s	Purple ore	Blue Billy. (so-called Blue Billy.)	Hematite.
Peroxide of iron	69.98	96.00	70.07
Protioxide of iron	—	0.64	—
Protioxide of manganese	..	Trace.	0.21
Alumina	0.90	—	1.75
Lime	2.65	0.54	1.98
Magnesia	0.33	Trace.	0.57
Carbonic acid	—	—	0.35
Silica	5.24	1.68	13.76
Sulphur	4.61	0.03	0.03
Phosphoric acid	None.	None.	0.11
Copper	—	0.01	—
Chloride of sodium	—	0.32	—
Mol'stire	16.16	0.72	12.25
Total	100.36	99.94	100.18
Metallic iron	58.42	68.18	55.90
When dry.	When dry.	When dry.	When dry.

Despite this prejudice, the British Metal Extracting Company, the Staffordshire Copper Company, and the Tyne Metal Extracting Company have now sold nearly 100,000 tons, principally for fettling, and no works with intelligent managers or workmen, who have once tried it, have ever given it up. The analysis will show that it is eminently suitable for the purposes of washing and cleansing the iron sponge, and contains a very high percentage of pure iron, and cannot fail, when properly used, to produce a larger yield and better quality of iron.—*Glasgow, May 22.*

WILLIAM HENDERSON.

A VISIT TO THE PARIS EXHIBITION.—No. I.

SIR.—Details are only interesting to the few, and generalities too frequently teach nothing, so that I shall aim at pursuing a middle course, in giving some notion of what may be seen at this great world-show, and seen to advantage by those whose occupations in life lead them to a weekly perusal of the pages of the *Mining Journal*.

Group 5, class 40, and group 6, class 47, are where we ought to find the objects, as per catalogue, in which we are mostly interested. The former is under the heading of "Mining and Metallurgy," and the latter, "The Apparatus and Processes of the Arts of Mining and Metallurgy." Group 5, class 46, "Chemical Products," deserves also our attention. You may imagine that with catalogue in hand, every object numbered, and the arrangement and classification sufficiently complete to satisfy even the orderly mind of an accomplished German, that you have nothing to do but to walk through the numbers consecutively, and everything will turn up just as the catalogue arrangement leads you to expect; but, alas! arranging and classifying on paper is easy work indeed to what following out this arrangement by placing the objects, happens to be. If you require an illustration of this truth, then go to the Paris Exhibition, and you will there find it, but not so much, perhaps, to your satisfaction as to your annoyance and inconvenience. You have carefully examined No. 29, and naturally you conclude that No. 30 must follow, but after allowing your eye to wander as far as it can reach—and, unfortunately, it cannot reach far in the Exhibition building—you fail to detect the whereabouts of 30; and, possibly, days after you may stumble upon it in some outhouse, sur le Grand Boulevard, or Allée de something or another, dans le Jardin de l'Exposition.

It is an easy thing to find fault; and surely a goodly number must have found out how very easy this is in relation to the Paris Exhibition. "Our own correspondents" to les Journals de Grande Bretagne et Irlande have dosed us to the full with complaints; and Transatlantic steamers have carried to Brother Jonathan the like evil dictum, causing, no doubt, in a great measure, the marvellous continuity of misfortune which to-day acts as an anchorage cable to our unlucky great ship; and causing, also, to some extent, a delay in the great influx of sovereigns and dollars, for which Avarice invariably, under similar circumstances in every country, stands with outstretched hand.

Mais pour nous c'est indifferent et sans conséquence, unless we meditate a long stay in Paris. We are more inclined to look at the bright side of things, and however contradictory it may appear, we are, nevertheless, doing so in gazing upon that immense column of coal from Nova Scotia, about 37 feet high, with its associated, comparatively, smaller columns, all representing respectively the thickness of coal seams. On whatever side we look upon these rectangular columns, we are looking on a black side; but then the reflection, not of the coal itself, but of one's own thoughts as to the practical value of such a deposit of black diamonds, is a bright one. These les colonnes de charbon de terre du Nova Scotia stand in the grounds a little to the right of the grand avenue, as you enter from le Pont d'Iena; and as we look upon them with a kind of admiration, we are informed that some three or four other sets of columns of the kind have been erected at other exhibitions, and it is thought that this will be the last. Whether our informant meant that this Paris Exhibition is to be the last of international exhibitions, and that the end of time is near, we know not, but scarcely suspect that this was intended. Similar columns from our South Staffordshire mines might have been placed in the company of these New Scotland blacks without losing much in comparative stature by contrast. Apart altogether from commercial questions, what labyrinths of wonder and amazement we are led into by contemplating these representatives of such gigantic coal deposits? Whence came all the vegetation, and how deposited? Human thought is lost in the maze of estimating time by myriads, required to bring about such astonishing results. We have before us, in these black pillars, a volume full of chapters, or divided by epochs, which men pretend to understand, and attempt to explain; but after the most erudit dissertation of the geology thereof, we still feel our ignorance, and the littleness of the knowledge we have; and in this mood of mind we turn ourselves in the direction of an entrance to the treasures of art and science contained within le grand maison de l'Exposition.

We shall for the present pass through le Grande Galerie des Machines, and enter le Galerie des Matières Premières. Here we are met with the well-known Aberdare steam coal, in well-hewn blocks, placed in neatly got-up cases. The Aberdare Coal Company, the Blaenavon Company, Bodringalt Coal Company, Nixon's Navigation, the Copper Miners in England (Governor and Company), &c., are all represented. This Welsh steam coal is, after all, a unique steam fuel. Even at an International Exhibition it shows forth an individuality. Once having seen a block of this coal, you know it again. Seeing it thousands of miles away from home, stored at some coaling station for a steam navy, it seems to say to one—"We come from the Aberdare Valley." Its rough face and queer fracture, and stubborn resistance to the force of blows, are its peculiar features out of the fire-box. When performing duty as a heat producer, the vigour and smokeless manner in which it does its work is also a notable characteristic. It was, no doubt, at one time—indefinitely far away in the past—as dirty, sooty a coal as any of its relatives; and we are

instinctively led to ask ourselves what has become of its smoke? By what agency has it acquired its greater amount of fixed carbon? There is another connection of the family (anthracite), impressing these queries still more forcibly upon us. Representatives of them are from Pennsylvania, America, and from the west of Aberdare Valley, in Pembrokeshire. One would like to have a clear, intelligible history of the family. Their autobiographies are not very readable, and we turn away from them as from a difficult passage in an old Latin author, wishing we knew more without the hard work of poring and penetrating.

A MINER.

ANSELL'S FIRE-DAMP INDICATOR.

SIR.—To reply to each of the queries of "A Colliery Viewer" would be to enter upon a controversy for which he professes himself unwilling, and for which I confess I have neither the inclination nor the time. I have never said or implied that my instruments "are not reliable"—this, notwithstanding my Parliamentary evidence, is much misinterpreted. I once more invite "A Colliery Viewer" to tell me the circumstances under which my instrument was found "not reliable," when used in accordance with the directions. I also invite him to point out one fault or difficulty in its use, the existence of which I have omitted to state and explain. If he will descend to facts, and on them found opinions, I shall feel obliged.

Royal Mint, May 20.

GEORGE F. ANSELL.

PUMPS, ENGINES, &c.

SIR.—I am about to open a mine 350 yards deep; the pits are sunk, and it is estimated a pump 20 in. in diameter, working 8-ft. stroke, 10 strokes per minute, will pump all the water. I shall want an engine and pumps to do this. Should any of your readers have such on hand I will thank them to inform me the lowest price at which they will deliver it and put it to work within 50 miles of Birmingham, describing how and where it may be seen.

My principal reason, however, for writing is in consequence of an idea which has struck me that some new invention may be known of less cost, and workable with greater economy; if so, I shall be glad to obtain the necessary particulars. If you will be pleased to call the attention of your readers to this subject I shall be obliged.

R. N. P. T.

N.B.—If any engineer will favour me with the cost of a new engine, pipes, pumps, &c., put to work and warranted for reasonable time, I will give his offer a fair chance. Some will, perhaps, advise a bull-engine, and others a condensing-engine: advice and price is what I seek.

SILICATE OF MANGANESE.

SIR.—Mr. Mushet in his letter, published in the *Mining Journal* of May 6, says, "Recently a discovery has been made of silicate of manganese, a mineral more valuable as an iron improver than even spang iron ore." Now, I presume that Mr. Mushet did not come to this conclusion without having experimented with this mineral, as he writes so positively upon its value; if, then, he will further say how and in what quantity the silicate of manganese should be used, I will, I have no doubt, oblige many of your readers.

HEMATITE.

MINING PROSPECTS IN BRAZIL.—No. II.

SIR.—I availed of your valuable columns in the *Journal* of June 9, 1866, to treat in a general way on the auriferous value of the Cordillera of Ouro Preto. It is gratifying to me that experience is daily more and more corroborating the correctness of the anticipations relative to the workings of the Don Pedro North del Rey and Anglo-Brazilian Mining Companies. The object I had in view was, on the faith of the correctness of the predictions, to hold out the expectation of finding many points in this Cordillera worthy of the same development. I now propose to treat, on sectional consideration, of the site of the Padre Faria property, a place within the municipality of Ouro Preto, capital of the province of Minas Geraes.

The layers of large (indurated clay, I presume) schist, jacotina, and, in general, what I understand miners call the "country," all dip to the south. The gold found by the explorers in olden times in the Californian epoch, thus to speak, of Minas Geraes was taken from the beds of jacotina and other soft material. In paper No. I. it was considered that from the hard rock being more or less auriferous, and from the existence in various points of the Cordillera of upheavals of the hard rock, they were eruptions or effervescences diffused over the Cordillera of these upheavals, and afterwards by aqueous influence, in layers of uncertain thickness—sometimes in narrow strips, sometimes in a large body. On looking at the eastern cliff of the Talho Alberto workings, there is still to be seen a layer of jacotina about 6 or 7 in. thick, and which, from the extensive Talho Alberto workings there, we must suppose to have expanded into a large body. On the eastern side of the upheaval, on looking at the drifts run in the mountain low down, they appear to have been driven through a body of jacotina, or something that resembles it very much. I am of opinion that if the expense were gone to of timbering the ground there is a good deal of auriferous jacotina to be met with, left by the old people, from their inability to take it all away.

In Padre Faria one of these upheavals exists, and I believe that about 500 yards to the west there is another, in the Moreira property, but I can speak more positively on the one of Padre Faria. It is met with on the surface in the Tassara property; it is there 3 yards or 4 yards wide, and crops out for a considerable distance in a north-north-east direction. The first look at it does not indicate it to be of the same kind of stone as that found beneath, at the bottom of the valley. It is very rich stone, but is not handy for a large force of men to work on it.

At the bottom of the valley the vein-stone is found to be dipping north, in alternations, the intermediate spaces being schist or killas of about 2 ft. thick. The vein-stone is quartz and felspar, interlayered with oxide of iron, phosphate of iron, peroxide of manganese, arsenical pyrites and ditto decomposed, and also a stone called by the Brazilians Pedra Mulatta. These alternations open and shut, then re-open and re-shut. Their greatest width that I am acquainted with is about 1½ foot, very rich stone, and worthy of having a separate spalling-floor. A layer of flagstone comes in, cutting them right through, but on sinking on this flagstone about 2 ft. the vein-stone is again come into. An experienced English miner, on seeing the cabeceria (end), said that it was a champion lode. An experienced Brazilian miner, who from childhood has worked in the mines, said it was the formacao mestre. As I am not a miner, the idea to my mind is that these alternations are principal offshoots from some main lode, which it may be conjectured cannot be far off; and if an inference can be formed from the richness of these offshoots and the diffusion in the hard rock, in places where there is no upheaval, of little sprouts of veins not thicker than a hair, the conclusion seems natural that the main lode must be a very valuable one.

From the conical figure of the mountain, and judging from the height from the mine to the surface in the Tassara property, the width of the lode at the level of the mine, must be equal to that of the Morro Velho lode, belonging to the St. John del Rey Company.

The descent of the Marianna road to Marianna is very great, and with respect to the Padre Faria, if an horizontal line be drawn of 220 or 234 fathoms (where Padre Faria ends) from the mine, the perpendicular line down to the rivulet must be about 234 fathoms, by eye measure; at this point the river Funil, known in Marianna as the Rio de Carma, finds its outlet from a very high cascade—the Tombador—whither it has arrived from the bridge in Ouro Preto, the Perpendicular line down to the rivulet must be about 234 fathoms, the width indeed?

Practical people inform me that the river Funil, at the level of the Tombador, will give a sufficient fall to work a series of stamps in the Padre Faria rivulet (the Correjo de Ujo).

There is also a stream coming down from the top of the Itacolumi Mountain, and which, by means of an aqueduct, can cross the river Funil at any height required, in a certain part of it where it runs in a steep and very narrow gorge of the mountain. I am informed that the Itacolumi stream referred to contains sufficient water to work in the dry season a 36-head stamp.

That Padre Faria was very rich is unquestionable. The historical

annals affirm this to have been the case: the existence of the numerous drifts running into the mountain tend to the same conclusion.

At the Talho Alberto workings referred to, it answers the purpose of the Brazilian owner to go pottering about in search of the little sprouts of branches which I have mentioned, of the thickness of a hair, on the exposed hard rock, and which sometimes turn out very well; he follows the Brazilian system, of bringing the stone down from the top of the mountain in carumes on the heads of workpeople.

That Padre Faria, if worked systematically on the points where the upheavals exist, will be rich seems to be a question not at all problematical, for quantity will be combined with quality, and that it will also be a very cheap mine to work is inferred from the topographical situation of it on the side of a hill, and affording great facilities to bring in adits at a great depth.

Ouro Preto, March 30.

S. O.

HISTORY OF MINING—No. III.

SIR.—In some recent letters of mine which appeared in your columns, the origin, antiquity, and early history of mining were discussed. So many letters have been addressed to me on this subject that I will, with your permission, return to it. Few topics could be more suitable to your journal, or more interesting to a large number of your readers. In former letters I pointed out the fact that in the antediluvian world, and in the circle, or, at all events, the precincts of Paradise, precious metals existed, and that, as the first man was not a savage, but intelligent, and supernaturally endowed with a knowledge of the nature and relation of things around him, it was likely that he recognised the value of metallic substances, and had some foreknowledge of their future uses. In some letters addressed to me it has been maintained, that in order to procure any of the other metals, man in the primitive ages must have had iron, and that, therefore, iron must have been the first metal known to man, or, at all events, used by him. This does not appear to have been the case, as far as evidence is supplied to us by the relics of the past.

Geological researches show that in various countries men used stone, flint, and bone, to procure timber for fuel, buildings, or other uses to defend themselves against wild beasts, and against one another, and to conquer animals for food. Frequently the harder woods were used, when stone, flint, or other hard substances were unavailable. But in many instances the metals lay upon the surface, and were easily separated from the soil or rock, and fashioned into rude implements. As far as history and tradition throw light upon the subject, the precious metals and brass as copper was called, were known and appreciated long before iron was valued, if known. There is a striking illustration of this in the present age in New Mexico. In the last number of my "Guide to Investors" there is an article written by a gentleman familiar with all the mineral regions of North America, in which he uses the following language:—"It has been a matter of incredulity that the aborigines of New Mexico, more particularly in the Santa Fe district, make the bullets for their rifles of silver; it is, however, perfectly true, and it simply arises from the fact that they have no other mineral from which they can procure metal within hundreds of miles, so that lead would be to them more expensive. They have as means of importing it, whereas they take masses of the rocks with which they are surrounded, build a kind of furnace, and with the charcoal which they make, assisted by the alkali which is found in such quantities throughout the country, they very soon flux the ore, and when the fire is out they have in the sole of their furnace the metal required for use."

As the statements in the above paragraph are undoubtedly true, they prove irrefragably that the knowledge and use of iron as a preliminary to the possession of other metals, and to any progress in civilisation, was not indispensable, however important. In one of the letters addressed to me on this subject, my attention was called to the fact that Tubal Cain was designated the instructor of every artifice in brass and iron, and that he, being a son of Cain, the use of iron must have been known from the very beginning of the history of our race. Tubal Cain was not, however, the son of Cain, nor yet his grandson, nor even the eldest of his great grandsons; and when it is remembered that a marvellous longevity marked the antediluvian patriarchs, a long space of time would elapse between the birth of Cain and the mature age of one of his younger great grandsons; and that the earth, or that part of it whence men issued forth to people it, would be very populous. Tubal Cain was, probably, the first skilled artifice in brass and iron, the two metals named; but these and other metals may have been used in a rough way before. One thing is certain, that cities were built before any help to build them was obtained from copper or iron, made into skilfully constructed instruments, for the great grandfather of the artifice built the city of Enoch.

The word "instructor," which describes Tubal Cain in the English text, is one of vague import, and has been translated "wether." At the period when he was thus distinguished man, according to the chronology of Archbishop Usher, had inherited the earth for the very least, 500 years. It is more than probable that the part really taken by Tubal Cain was to excel in what was known before, and so to excel as to become an authority for all men and many ages. The great antiquity of metal artificing does not prove that mining is so ancient, because, although metals might be obtained from surface mines, mining proper—the pursuit of the ore when deeply embedded—must have been subsequent to the discovery of surface iron, and the skilful construction from it of the requisite tools. Probably no deep mine was ever worked until after the deluge; how soon after that event the like occurred it would be impossible to prove; but conjecture is well supported by tradition in reckoning that the second process of peopling the earth was at an early stage marked by man's eager quest beneath the soil for the metallic treasures there deposited.

Gresham House, London.

THOMAS SPARCG.

CARDIGANSHIRE LEAD MINING.

FROM GOGINAN TO THE TOP OF PLYNLIMMON.

SIR.—At a time when money is so plentiful and labourers abundant it may not be amiss to draw the attention of the public to this county. Were a few thousand pounds judiciously expended it might lead to the laying open of millions in value of lead and silver, as well as the employment of thousands of hands to work them for very many years to come. The attention of nearly all parties who have invested in this county has been chiefly devoted to mines which have been worked centuries ago, such as Cwmystwyth, Old Darren, Cwm Elin, Goginan, Cwmsymlog (now East Darren), Bronfloyd, &c., whilst the ground to the east of them has been left untouched.

MAY 25, 1867.]

sign lands, is it not deplorable to think that a few thousand pounds applied to his county might be the means of giving them employment, and keeping our miners at home, for the mines of this county are exactly suitable to the Cornish miners, and not a few of them have already located in this neighbourhood. If the mineral resources of Cardigan were fully developed thousands might find a comfortable home, and these mines may fairly compete, as has already been said, with the best that the world can produce.

It will be very satisfactory to learn that the mines recently put to work nearer Plynlimon Mountain, on lodges to the south of Goginan, are opening out and profitable, and if these remarks should be the means of bringing a hundredth part of this county is still undeveloped, and that a small capital what is necessary, together with a few months' time, to prove the correctness of what I now write. I intend on a future occasion to send you some remarks relative to the capital expended in this county, with the results derived therefrom.

—ABSALOM FRANCIS.

THE DYFNGWM MINES.

—I little thought when addressing you on the 8th inst. that the Dyfngwm was being inspected by Capt. John Davis, of Llywernog, as stated in the Journal of the 11th inst., and though there are probably as many Davies in Montgomeryshire as there are Smiths in Great Britain, there is evidently only one Captain John Davis, of Llywernog, to whom has been entrusted the important task of reporting upon what he saw at Dyfngwm. It was not my intention, Mr. Editor, to have trespassed on your valuable space again at present, but I have now avoided the occasion of making one or two remarks on Captain Davis's report. It is very odd, Sir, that all these practical miners (not one of whom I have seen) should agree, and, in confirmation of much that I have pointed out in writing to the shareholders and directors for months and years past. In speaking of the machinery at Dyfngwm, Capt. John Davis says the steam-engine "still continues in a very dirty and untidy state" (as the "Ex Officio" stated to be the case this time two years), that the water which "Ex Officio" was carried over the top of the 55-feet wheel, instead of at its breast, and that the outlet under the 40-ft. wheel should have been deepened, to avoid friction and loss of power with both wheels.

Capt. John Davis goes on to say that the waste (which "Ex Officio" complained of) was being insultingly ignored; that must have been perfectly frightful; this, I observe was confirmed before Her Majesty's Commission on Fisheries, by waste from improper dressing passing into the river, and destroying every thing within water-mark, the loss during all these years falling on the unfortunate shareholders and the lord on the spot receiving the dues, and from whom I have received a letter respecting the mismanagement of the mine generally. Capt. John Davis then goes on to state that he could not follow out his employer's views, and take tracings of the plans of the mine, inasmuch as there were none to be found. Captain John Davis and others must not suppose that they have not been asked for before. Off and on for twenty years I have been fighting for the same thing, until, finding that the boundary line between Dyfngwm and Dyllyfe was not legally settled, and that they were working up to and, under our sett, I made a formal request to the committee, in writing, March, 1865, urging that, if Mr. Davies was incompetent, someone else should be employed to do so, as a ship might be well pleased to sea without chart or compass—while Captains Ridge and Ball, when they surveyed the mine for the company last year found the same fault, and stated that without plans they could give no account of the reserves in the mine. With regard to the shaft, Capt. John Davis says the faults are too numerous to mention—that is to say, a whole has been wrongly done from top to bottom. "Ex Officio's" remarks on this head were mild in the extreme compared with Capt. John Davis's; then "Ex Officio" was not a practical man, which gave great offence, and Capt. John Davis is, and, therefore, what he says can no longer be ignored.

Mr. Davies, said in his printed report to the shareholders, "that things in general were in good working order, and ready for more extended underground operations than before."

As a practical miner and engineer, and knowing what he did, no wonder that Capt. John Davis was timid in descending, as he says, 500 ft. of upright ladders had bad condition, and so should I have been if I had known as much when I went down to the 82, to see the lode standing 3 tons of lead to the fathom—as it was in happy ignorance of these facts, except that occasionally I had to take long arms and legs when kindly told that spikes in the ladders were missing, and to take care when I came to certain dangerous places. As an amateur, anything had gone wrong I should have got little or no commiseration, and with the latest sounds of my—

"Head going knuckle-knock,
Like a pebble in Carrisbroke well."

until it got to the bottom, my untimely fate would probably be rejoiced over by me, and my signature lost to the *Mining Journal* under that of—

EX OFFICIO.

WHEAL CRELAKE.

SIR.—I hope you will think it worth while in the interests of mining to permit this letter to appear, calling attention to the report of the proceedings of the meeting of adventurers of Wheal Crelake, Tavistock. This meeting was a special one, called for business of the company. Five weeks previously the usual meeting was held, at which the books were balanced, and every cost charged up to the day of the meeting, and a call of 4s. made to clear them. No mine can be in a better financial position, and it is doubtful if there is a better list of shareholders in the county. This, taken with the great discovery that is being opened up, than which one of more value has not been made for a long time out of Devon Great Consols, should render this property one well worthy of the attention of investors. From the western ground of this seat in the valley of the Tavy great expectations were entertained, and these are now being realised. The mine in the 40 ft. level end was reported by the agents to the meeting worth 50,000 £, and the two levels under coming on after it steadily, now the 40 ft. is still further improved in size and quality of ore. The mine is now making profits, and, as the lode is still getting larger, there is some reason to expect the course of ore to increase, as it did east of the river formerly, to 3000 ft. fathom. Crelake appears to be about to assert for itself one of the first places on the list. All the machinery is there, and the shaft is down to the 116, and no dead work has to be done. The costs are confined entirely to driving the levels in the ore ground, stopping, and returning.

MINER.

SOUTH AUSTRALIA.—The Great Moonta Mines are paralysed by an injunction against payment of further dividends. The information proceeds to the effect that the defendants are directors of the mine; that they have caused to be worked, and immense quantities of copper to be taken from it; that they have divided 100,000 £ among themselves (information might have said 350,000 £); and that unless restrained they will work the mine out, to the great injury of Her Majesty the Queen, Samuel Mills, and other persons who may be entitled to shares of the lands now illegally held and occupied. The prayer of the information, therefore, is that the defendants may be restrained from working the mines; that they be required to preserve accounts of all minerals dug up and disposed of, and all monies received; that no more dividends be divided; and that a fit and proper person be appointed by the Court to carry on the working of the mines, and take charge of the proceeds.—*South Australian Advertiser*.—[We believe that more than 1000 hands, all told, and many of them, of course, earning large wages, have lately been employed in connection with the Moonta Mines. That mitigation should bring them to a standstill, therefore, for ever so short a time, may well be described as calamitous.]

The question of the manufacture of iron is now occupying considerable attention in South Australia, the iron ores of this colony being un-sound in quantity, lying close to the surface of the ground, and of extraordinary richness, some of them 90 per cent. The difficulty is want of coal, but we have inexhaustible forests of wood for smelting; and even if we have to import coal from New South Wales, the extreme richness of the ores would, doubtless, more than make amends for the extra cost of fuel.—*South Australian Advertiser*.

GOLD MINING STATISTICS OF VICTORIA.—The exports of gold, the produce of this colony in 1865, amounted to 1,545,149 ozs. This quantity was about 2249 ozs. short of that in 1864. The total quantity of Victorian gold which passed through the Customs of this and the adjacent colonies since the first opening of the gold fields amounted to 32,272,793 ozs., representing, at 41 per ounce, a value of 129,091,172. In addition to this it is estimated that 2,863,274 ozs. have been taken out of the colony by private hands, without passing through the Customs, bringing up the total produce of the Victoria gold fields at the end of 1865 to 35,266,940 ozs., which, at 41 per oz., would represent a value of 141,144,160. Since 1853, when the export of gold reached 3,150,020 ozs., the quantity has declined; 2,985,895 ozs. were exported in 1856, 2,290,678 ozs. in 1859, and 1,658,241 ozs. in 1862. The estimated number of gold miners at the end of 1865 was 79,457, of whom 63,331 were engaged in alluvial, and 17,326 in quartz mining. The estimate shows a reduction of 2290 miners upon the numbers enumerated in 1861. The machines used in gold mining in 1865 numbered 6337, representing an approximate value of 1,778,271. The number of steam-engines working in 1864, of which 473 were employed in alluvial and 491 in quartz mining, was 964. Machines were used in alluvial mining—3222 paddling machines, 427 whulins and pulleys, 115 whips, 78 horse pumps, 648 sluices and tons (having 4428 sluice boxes), 186 water-wheels, 32 hydraulic hoses, 102 pumps, 8 derricks, 25 crushing (having 461 stamp-heads), and 4 boring machines. The machines used in quartz mining were—99 crushing machines (having 5119 stamp-heads), 231 whulins and pulleys, 56 water-wheels, 12 derricks, 98 whips, and 10 quicksilver cradles.

SUBSCRIPTIONS IN NEW SOUTH WALES FOR THE SUFFERERS BY THE COLLIERY EXPLOSIONS IN ENGLAND.—Mr. William Keene, the Government Examiner of Coal Fields, having drawn attention to the recent frightful catastrophes, and interested himself in promoting subscriptions, to benefit the sufferers, we are glad to learn by the *Newcastle Standard* of March 23 that the following sums were collected, and have been remitted to England, "in aid of the relatives of the victims who perished by the explosions in the Barnsley and Tipton Collieries, and for which the manager of the Bank of New South Wales has given an order, payable at sight, free of charge. The following are the items of the subscriptions:—William Keene, 51; James Scott, 11, 1s.; Rev. H. S. Millard, 51; Rev. S. Simm, 11; Mrs. Simm, 21; H. Brooks, 10s.; Thomas Lewis, 11; total, 151, 11s. A sum of 677, 12s. has also been collected from the miners, &c., by Mr. Thomas Constance, the manager of the Lambton Colliery, which will also be transmitted to England for the same purpose."

CANADA EAST.—The Huntingdon Copper Mines employ about 150 miners, and nearly 4000 tons are taken out, averaging 10 per cent. of metal. The mines only commenced work the beginning of last year, and Capt. F. Bentwell has been there about eighteen months. The slate quarries are also doing well; they have plenty of orders, and all the slates are paid for in advance. The several properties have increased greatly in value.

INDIUM.—At a recent meeting of the Paris Academy of Sciences, M. Richter gave an account of a new metal, to which the name of Indium has been given, contained in the blonde of Freiburg. In appearance it resembles platinum, and is extremely soft and ductile. Its density at 20° centigrade is 7.15. The oxide of indium is of a pale yellow colour when cold, dark brown when heated; the salts colourless, and the chloride extremely volatile and hydroscopic.

In the spectrum Indium presents two bands, one intensely dark-blue, the other weaker and tending to violet.

MINING, METALS, AND MINERALS—PATENT MATTERS.

By M. HENRY, Patent Agent and Adviser, M. Soc. Arts, Assoc. Soc. Eng.

Many years ago a patent relating to bronze powder was taken out by Mr. BESSEMER, and was applied with advantage to the coating of busts. A patent for a bronzing machine (communicated from J. Knox Lowe) has been taken, under the number 2484, by GEORGE HASELTINE. The invention relates to a machine for receiving a prepared sheet, bronzing it, and discharging the same finished by one continuous automatic operation. In a frame are arranged rollers in connection with a pair of bronzing cases. The cases are so arranged in the frame as to permit of their being taken out, for the purpose of cleaning the rollers when charged with bronze or colouring matter. The claims relate, first, to receiving the prepared sheet, bronzing it, cleaning, and discharging the same, when completed, from the machine by one continuous automatic operation; secondly, to the bronzing-case cleaning roller, in combination with the bronzing-roller, or its equivalent; thirdly, to an apron and brush, in combination with the feed-rollers; and, fourthly, to belts and adjustable guides, arranged and operating with the rollers.

A specification has recently been filed of a patent No. 2578, in the name of WILLIAM CLARK (a communication from G. Williams, of Sterling, United States), for Improvements in Hoisting Apparatus and Cars for Mining Purposes. The invention consists in the arrangement of a bucket or car elevator, for raising ore, coal, water, or the detritus of mines, in connection with guide-wheels and rods, operated by means of a hoisting rope or chain, working on a drum or windlass, by horse or steam power, in the ordinary way, for raising and lowering the bucket or car, so that it shall be steadily supported and discharged by the deflection of the guide-wheels from their normal line of travel on to inclined ways, the axis of the guide-wheels forming a transverse line of support, upon which the bucket or car is canted or tipped over for the discharge of its load as it is raised by a lever ball attached to its lower end. By this arrangement, no additional power is required to upset and empty the bucket containing ore or coal into the shoot at the mouth of the mine, as in ordinary methods of attachment, in which the bucket is suspended at a point between its upper and lower end, and is tipped over by an obstacle which arrests its motion—as, for instance, upsetting it by grasping and holding the rim with the hands. Another branch of these improvements consists in the arrangement of a car, the doors at the ends of which are so constructed and connected with the body of the car that it shall be capable of being converted readily into a closed car for containing ore or coal, or an open car for carrying timber lengthwise on the bottom, and also the plan of securing the doors in place, for containing ore or coal, and tripping the door fastening for discharging the car.

A patent has been taken, under No. 2522, by JOSEPH WHITWORTH, of Manchester, for Improvements in Casting Iron and Steel, and in apparatus employed for this purpose. In casting certain articles, such as hoops, or other hollow forms or shells, when using rams (usually actuated by hydraulic power), arranged to give pressure to the melted metal in the mould, the patentee, after a time applying the pressure, and when the mass has become solidified, withdraws at the proper time the internal resisting instrument, to allow of the contraction of the metal in cooling. In forming some articles, such as those of considerable length, as well as others, the patentee applies pressure, which he prefers to be hydraulic pressure, to the outer surfaces of the mould, which he makes in parts or sections, and he introduces dried or baked loam or sand between the parts or sections, by which the escape of air is facilitated; and yet when pressure is applied to the sections or parts of which the mould is constructed, the section or parts are able to come nearer or closer together, and thus a limit of the requisite pressure is applied over a greater extent of surface of the fluid metal in the mould than when plungers only are applied.

A specification for Improvements in Grate-Bars has been taken by J. H. JOHNSON (as a communication from Samuel Harrison, Philadelphia, United States of America), and relates to an improvement in that class of grate-bars which consist of a number and group of ribs cast together, with spaces between the ribs; and the improved grating-bar consists of deep and shallow rib, or ribs, combined in one casting, so that the bar may be more easily moulded and cast, may afford a better circulation of air between the ribs, may be less liable to be choked with cinders and slag, and be lighter, and consequently more economical than ordinary grating-bars having a number of ribs of uniform depth. The improved bar is composed (according to one form) of three longitudinal ribs, connected together at the opposite ends, and at suitable intermediate points, by transverse webs, the whole being cast in one piece. The outside ribs are much shallower than the middle rib, and are made in the form of an arch on the under side; they may, however, be straight, or of a convex form. The middle rib is made in the form of an inverted arch. These ribs are arranged at a proper distance apart, to suit the fuel which has to be used in the furnace, of which a number of these bars from the grate and on the exterior of the outer ribs are the usual projections, by means of which the bars are mounted at a proper distance apart from each other.

THE SELECT COMMITTEE ON MINES.

The Select Committee of the House of Commons, to which this subject is referred, sat again on Thursday, May 16. There was but a small attendance of members, and considerable time elapsed before there was a quorum. Mr. Neate (the Chairman), Mr. Powell, Mr. Liddell, and General Dunne were the first arrivals, but it was nearly one o'clock before Mr. Ayton was obtained from another Committee to constitute this; after doing which he returned to his former engagement. Mr. Kinnaird appeared somewhat later.

The first witness called was Mr. William Mathews, proprietor of the Corbyn's Hall Works, at King Swindon, in the South Staffordshire district, a magistrate for the counties of Stafford and Worcester, and president of the Mining Association of Great Britain.

The CHAIRMAN: In the course of your examination last year you expressed an opinion favourable to the efficiency of the present system of inspection; have the dreadful explosions which have since occurred caused you to alter that opinion?—WITNESS: At a meeting of coalowners, called for the relief of the sufferers, I said that more efficient inspection was absolutely required. I do not think I expressed any opinion as to what that additional inspection should be, but I said that those persons actually in charge of mines should be a more efficient class of men, if accident were to be prevented. I do not mean that they should be taken from a higher type of men. Take, for instance, the Oaks Colliery. Mr. Morton I have not the pleasure of knowing personally, and make no charge against him; but the seam presented materials the most explosive and dangerous, and the mode of working ought to have called for remonstrance earlier on the part of the Inspector. It is just possible—I will not say it is absolutely so—that the accident might have been prevented if there had been a greater amount of vigilance on the part of the Inspector.

The CHAIRMAN: Do you think a greater vigilance is impracticable with the present number of inspectors?—There are now a greater number of collieries—so great that any system of inspection is not practicable which includes the whole.

The CHAIRMAN: Would you increase the power of vigilance by adding to the present Inspectors, or by appointing Inspectors under them?—I should greatly deprecate the appointment of inferior men. A sub-Inspector implies a man of inferior capacity, and it would be dangerous to have such men as Inspectors.

An efficient Inspector must be a first-class able man, who ought, above all things, never to relax his vigilance, or, from want of confidence in his own knowledge, neglect to remonstrate with the employer whenever he sees anything he believes to be objectionable in the working. I refer to the general system of working. Take the Oaks Colliery, for instance. There is a seam of a dangerous character, emitting carburetted hydrogen in large quantities, and yet the ventilation was carried all through the workings, and through every part of the mine, before it was discharged into the open air, a system highly dangerous, and likely to lead to accident.

The CHAIRMAN: And if there had been proper vigilance the late accident might have been prevented?—It is impossible to say that. All I know about it is from the reports in the newspapers and of the Inspectors; but I think that attention ought to have been called to the dangerous system of working which was employed.

The CHAIRMAN: Mr. Dickinson says that a system he recommends would greatly lessen the danger. Do you think any system can be made imperative by the Legislature to that end?—To make the Inspectors responsible for systems of working would be to throw upon them a responsibility that Parliament never contemplated, and which the masters might be glad to get rid of. I need not point out to this Committee how great an amount of mental misery is experienced by an employer when by an accident a number of lives are lost, however remote the actual blame may be from him.

The CHAIRMAN: I gather from your remarks that you think the present staff of Inspectors is not sufficiently numerous to carry out the intentions of the Act of Parliament?—Yes; but any addition should consist of thoroughly efficient persons.

The CHAIRMAN: You would not strengthen the Act, but have a more efficient staff to carry it out?—I think the Act already goes as far as it can do.

The CHAIRMAN: A suggestion has been made to us that the staff might be added to by the introduction of a system of young students.—If I might give an opinion, I should say Heaven preserves us from young students. A more dangerous thing could not be introduced into a colliery. I expressed an opinion last year on the subject of employing women at the pit bank. Since then I have read the report of the evidence taken on the employment of women in agriculture, and I have no hesitation in saying that those employed at the collieries are a very superior class. They are, almost without exception, honest, hard working people, and it would be a great hardship to displace them by legislation, and hand them over to such a demoralising system of employment as that report reveals.

I should wish to make one remark, and it is that whatever you may do will never be able to prevent accidents, so long as the men continue to exercise so little care and discretion themselves. With reference to North Staffordshire, I know, for instance, that smoking is almost universal. It has not been found possible to prevent smoking in railway carriages, and you will find still more difficulty in mines—men will smoke. In many mines, like those in North Staffordshire, you are certain to have serious accidents if you cannot prevent smoking. No doubt in the mine at Tipton there was great want of discipline; and we hear of some of the managers themselves sitting down to smoke. Nothing could be more dangerous. As, however, no one can go down a pit where smoking is practised without detecting it by the smell, I infer that both management and inspection must be extremely lax.

Mr. LIDDELL: But smoking is an infringement of the special rules?—The only

remedy I can see is not to let a smoking collier go into a mine at all, but that I am afraid would very materially circumscribe the quantity of available labour. The practice is fraught with all kinds of danger. Within a fortnight an explosion took place by which a man was killed, and on investigation it was found that in his working place some gas appeared, and he took his jacket to brush it out, when the attrition thus produced ignited some matches in his pocket, and produced the explosion. If men will be so foolhardy accidents must result, and, therefore, the Legislature ought to look after the men much more than the masters. I do not say that carrying lucifers should be made a criminal act; I only state a fact for the information of the committee. I think a salary of 600/- a-year is enough to secure the services of men good enough for the situation of Inspectors, but it is difficult to find men who have all the necessary qualities. An Inspector ought to have considerable experience and knowledge, and be one whose opinion the coalowners would receive with deference. He ought also to be physically a strong man to do all the duties he may be called upon to perform. I think the rule of the Home Office to reject men at 40 years of age is a mistake, as a man may not have gained experience enough before that age.

Mr. LIDDELL: You have said that the Government should combine with the coalowners to prevent accidents?—I think so: the coalowners are quite ready on their part. I do not know how that could be better done than by following the plan adopted with respect to the Bill of 1860. On that occasion the Government and the coalowners had a conference to see what could be done; and a similar conference might now be held to see if anything can be done by further legislation to prevent accidents.

By the CHAIRMAN:—I do not think there is more danger in small collieries than in large ones. I do not say the Inspector ought to go down every pit in his district six times a year; but certainly several times when there is danger from explosive gases. I do not think that much advantage would result from a system of certificates for managers, which might be suspended or withdrawn in cases of neglect. The interests of their employer compels them now to be very circumspect, and if they satisfy the owner that is enough.

The CHAIRMAN: Is not economy standard in the interests of the owners?—Not in the least; the first point looked to is the best management, both as to the safety of the workmen and the work done. The salaries of managers depend upon the extent and nature of their duties. It is impossible, in the strict sense of the term, to lay down rules as to what are the duties of managers.

The CHAIRMAN: Mr. Dickinson suggested that the Inspector should have the power of making the method of working a subject for arbitration?—It would be a dangerous course—a proprietor ought to know best how to work his own mine.

near Bristol; it was ventilated without furnace power?—It is a well-conducted mine, but I do not think that workings more than a mile from the shaft should be ventilated without furnace-power, although when there are two shafts the natural ventilation is considerable.

By Mr. POWELL.—The reason we have more falls of roofs in my district than in others is that the latter possess a stronger stratification.

Mr. POWELL.—Has it ever occurred to you that it would be an advantage to have a panel of arbitrators; that is, a list of persons agreed upon, from whom alone arbitrators can be chosen?—It has not; but an arbitrator ought to be a mining engineer, of whom there are an abundance, in order to understand the technicalities of the cases brought before him. It might be done, but I would prefer the owner and Inspector each to select one, and they to choose an umpire.

By General DUNNE.—If you give the Inspectors too much power, you throw a great responsibility on the Government, as well as on them. An Inspector should not only be experienced and able, but he should be a gentleman.

By Mr. LIDDELL.—Such an accumulation of gas as I have described is, doubtless, the result of immense pressure going on for ages, and could not have resulted from want of ventilation in the workings. There is now in our district a growing opinion in favour of more shafts, and to defer to the views of the present day, I do not think our mode of working the best. It would be better to follow the Northern system, of commencing at the farthest point and working homewards, leaving everything that is bad behind them. That plan has been established in Lancashire for 60 years, and in Staffordshire and Shropshire for 100 years. In most cases in our district they do not drive out to the extreme boundary before they begin to draw coal. They cannot keep their hands off it. It involves a delay in the first instance, but there can be no question the Lancashire plan is the best.

Mr. KINNAIRD: You said the owners are more willing to defer to the views of the present day. Explain that?—I mean that formerly coalowners got the coal out whether it was safe to the men or not; now they see that, not only for the sake of humanity, it is more profitable to have a liberal outlay to keep the works in good order, and more economical in the long run.

Mr. KINNAIRD: Then legislation has tended to save life?—Most certainly.

Mr. KINNAIRD: Then as knowledge increases precautionary enactments should be extended?—Yes; but it should be done gradually. I think it due to those who get their bread and make the fortunes of others by mining that they should be protected.

Mr. KINNAIRD: An increase of Inspectors would not hurt the workmen?—It would be an advantage to the men, and, probably, profitable also to the owners.

Mr. LIDDELL: But the Home Office has now power to do that?—I believe so. By the CHAIRMAN.—As the mines get deeper and deeper the difficulty of new shafts becomes greater. By-and-bye we shall have to go down 1000 yards, but before then our knowledge will, no doubt, be greatly increased. There is a mine in Belgium which is now 1000 metres deep. I should not fear, with our present knowledge, to sink a shaft 1000 yards deep.

Mr. KINNAIRD: Would you extend legislative protection in the case of boys?—I would not go beyond 12. If you run up to 14 and 15 there will soon be no colliers at all, as they will get into other employments. Now boys at 10 may go down if they can read and write, and at 12 they can go down whether they can read or not. I would not let any go down till they are 12 years of age, and that would settle all the questions that are continually arising as to certificates of education, &c.

By Mr. LIDDELL.—In my district education does not make much progress, but there are plenty of schools. Nine out of ten cannot write.

By Mr. POWELL.—The schools are conveniently situated. The committee then adjourned until Tuesday week.

Meetings of Mining Companies.

ROSSA GRANDE GOLD MINING COMPANY.

The second ordinary general meeting of shareholders was held at the London Tavern, Bishopsgate, on Tuesday,

Mr. GEORGE NOAKES, F.G.S. (managing director), in the chair.

The notice convening the meeting was read. The report of the directors stated that the Rossa Grande estates have been duly and legally conveyed to the company's trustees. Special arrangements were sometime since made, whereby the directors were enabled to give Capt. Brokenshaw permission to commence the preliminary works necessary for laying open the mines. Capt. Brokenshaw has uncapped the back of the lode in the "second formation," laying bare a considerable extent of ore ground for stopping; he has also driven the adit level home to the point of intersection with the lode in the "first formation," thereby putting the mine in a position for the immediate raising of ore; he has likewise completed the erection of the first 12-head stamps and brought the water-course to bear upon them, so that the mines can now be worked for immediate returns. Considering the favourable district in which these mines are situated, the profits surrounding mines are now making, and bearing in mind the results of recent explorations by Capt. Brokenshaw, who, in addition to the lodes originally reported on, has discovered others of a most promising character, the directors feel justified in anticipating, in confirmation of Capt. Thomas Treloar's report (upon which the company was founded), that the Rossa Grande property, under a due course of development, will become remuneratively productive.

The CHAIRMAN said that they were again met according to the constitution of the company, but for his part he should be exceedingly glad if these meetings were held at least twice a-year, so that the shareholders might be more frequently acquainted with the company's affairs. Unfortunately—more particularly in mining companies—rumours very often adverse to the interests of the company, and adverse to the directors, were propagated without the opportunity of the shareholders being informed whether those rumours were true or not, and, therefore, it was upon that principle that the officers the directors met the shareholders the better. (Hear, hear.) They had passed through a long period of very great anxiety, which none could have felt more than the directors—upon whom the responsibility rested of conducting the company's affairs—and he might say conscientiously that every member of the board had endeavoured throughout to protect the shareholders' interests to the best of his power. As stated in the report, there had been great disadvantages from the long delay which had taken place in bringing the works of the mine into active operation, but the directors felt that until all difficulties had been cleared away of a clear title to the estate, no portion of the purchase-money should be paid. All those difficulties had been overcome, and the company now possessed a clear title to the property, which no one could gainsay. Although to accomplish this had taken a long period, the whole of the time had not been lost, for in the interim a great deal of most important preliminary work had been accomplished. Capt. Brokenshaw had been able during that period to take measures for the future working of the mine—and the directors were told by the vendor of the property (who was sorry was not present) that the driving of the adit level took five years, and which had been driven by the present company for upwards of 20 fms., to a point which was of the utmost importance—its results, at all events, might be such as to make the property in a very short time, he would not say all that had been stated, because that could only be proved by larger development, but it would possibly prove this—that the lode to be worked upon was highly productive. The proprietor of the mine had also informed the board of another important feature, which was this—that they were unable by mule power to pump the water, and consequently a "rise" was put up, so as to enable them to develop it with greater facility. They reached the lode and worked upon it, and it was very rich. Subsequently family disputes took place, which caused the suspension of operations at the mine when from neglect the shaft ran together. They all knew the difficulty of clearing a work of that kind, more particularly after it had remained in that state for a number of years; but Capt. Brokenshaw had more particularly confined operations to the clearing out of the rise, which he did up to a certain point, when he feared the stuff might be too much for him, and he proceeded to drive the adit level. In doing so he passed two lodes, for they were more than branches, although neither was the main lode, one of which contained gold visible to the naked eye, and Capt. Brokenshaw found by dialling that in about 5 fms. driving the main lode should be struck; and he was the more certain of being able to do this from having cleared away some brushwood, and discovered the old workings, which had enabled him to dial with more accuracy the underlie of the lode. Therefore, it was possible that by the next mail information might be received that the main lode had been cut at the deep adit level; but shareholders should not be disappointed if it took a little longer time, now if just at the point cut the lode was unproductive. He (the Chairman) should have told them that Capt. Brokenshaw was in a position to immediately commence operations when he had sufficient water-power to commence with. Capt. Brokenshaw had done more than that, for in what was called by Capt. Treloar "the second formation," he had uncapped the back of the lode, laying bare a considerable amount of ore ground for stopping. From these facts it would be seen that the mine was now in a position to commence working for a available returns. He (the Chairman) knew that he was called a "wet blanket," but it was impossible to tell what results might be realised; he, however, would not have the shareholders disappointed if, as he had already said, the lode was not cut productive, because he dare say there were no means sufficiently acquainted with mining to know that all lodes were liable to fluctuations in value being at one point very rich, and at another very poor. They were told upon excellent authority that the lode had been proved to be rich; but there was another feature which ought to increase their confidence in this respect, which was the report of Capt. Thomas Treloar. It was upon his report that this company was formed, and they saw the results that were following his working—the results following his predictions and his judgment, as testified in the St. John del Rey, the Don Pedro, and the Anglo-Brazilian Mines. It was not that Capt. Treloar put the gold, but he was able to judge from the character of the ground that the indications were such that, probably, the lodes would be most productive. When he (the Chairman) looked at Capt. Treloar's report upon the Rossa Grande Mine when the company was placed before the public, and compared it with his report upon the other mines which he had reported upon at the same time, he was astonished to read the strength of language employed, and the decided opinions expressed much stronger than in the reports upon those mines that had been worked under his judgment, and had become so productive. Therefore, he thought that there was a *prima facie* reason that they should have confidence in the future working of the Rossa Grande. (Hear.) He had already stated that the mine was now in a position to commence working for available returns, and as far as could be seen there seemed reason to believe that in two months from this time small returns would be made, which he hoped would be increased month by month. He need not tell the shareholders that the board of directors in London could not work mines 3000 miles away, but that it depended upon the management there, as to its honesty and integrity, whether the property was successful or otherwise. He (the Chairman) must say that in all the mines he had been, and still was, connected with, in no instance had he had such satisfaction in the correspondence as in that from the Rossa Grande Mine. (Hear, hear.) He had no doubt it would be satisfactory to the shareholders to know the financial position of the company, and before proceeding to state it he would mention that the expenses had been kept as low as possible consistent with the working of the establishment. The capital available to be called up would leave after payment of the purchase of the property and every other liability to this day the sum of 55,000£ to work the property. The position of the company, therefore, is strong enough, and he had no idea that anything like this amount would be required for the development of the property. Looking at the prospects of the mine, and at the increasing prosperity of the surrounding mines,

many of which were not known to the English public, but looking at the results of the St. John del Rey and the Don Pedro and Anglo-Brazilian Mines, which were now creating such sensation, he thought they had at least most encouraging features to go upon. (Hear, hear.) He then moved that the report and balance-sheet be received and adopted.

The motion adopting the report was, after a short discussion, put and carried unanimously. Mr. C. W. White was re-elected director.

The CHAIRMAN said he had a great deal of pleasure in submitting the next resolution. He had been working this company since its formation, and, although his colleagues were most excellent men of business, and worked harmoniously together, each had long felt it would be very desirable if they could obtain, not only an accession of new blood upon the board, but at the same time gentlemen who, by their influence and position as mining men, would strengthen the present direction. The gentleman whom he was about to propose was one upon whom the sun seemed to shine in its zenith, and he (the Chairman) was sure they would all like to get into that beam, and realise the same prosperous results. The gentleman to whom he referred was Mr. Henry Haymen, whom he had much pleasure in proposing should be elected to a seat at the board. Mr. Haymen was the chairman of the Don Pedro and the Anglo-Brazilian Companies. (Hear, hear.)

Mr. TUCKER seconded the proposition. He had known Mr. Haymen for many years, and he was satisfied the meeting could not possibly do better than to elect a seat at the board.

The motion being put, Mr. Henry Haymen was unanimously elected a director. The CHAIRMAN said he had next to propose that Mr. R. Hesketh, one of Mr. Haymen's colleagues, be also elected a director. Although Mr. Haymen was a tower of strength in himself, by adding another director from these successful companies, with which he was so closely identified, to the Rossa Grande board, it would, no doubt, be satisfactory to the shareholders and to the public at large. The resolution being duly seconded, was put and carried.

Messrs. Cash and Edwards were re-appointed auditors. It was agreed that all general meetings in future should be half-yearly.

A vote of thanks to the Chairman and directors terminated the meeting.

MARIQUITA MINING COMPANY (LIMITED).

The first general meeting of shareholders was held at the London Tavern, Bishopsgate, on Monday.—Mr. R. A. Routh in the chair.

Mr. C. O. ROGERS (secretary) read the notice convening the meeting.

The CHAIRMAN said he had the honour, upon the present occasion, to present the first annual report of the Mariquita Mining Company (Limited); but although it was the first report of this company, he thought it was not the first time he had had the pleasure of addressing most of those present. With the permission of the meeting, he would read some extracts from that report, with the view of bringing before the shareholders the exact position of their property. He would, in the first place, direct attention to the constitution of the company. As stated in the report, it was formed for the purpose of purchasing and working gold and silver mines in the Republic of the United States of Colombia (late New Granada)—the establishments of Santa Ana, Marmato, and Aguas Claras, formerly belonging to the Mariquita and New Granada Mining Company. Possession was taken of these several properties with all the assets upon them—lands, buildings, dwelling-houses, machinery, stores, and materials—as from Feb. 1, 1866, and subject to all liabilities at that date; and the directors would have been glad if they could have reported more successful results. Impediments have occurred, more especially in working the mine of Santa Ana, which have diminished the returns, and created considerable delay; but nothing had happened to alter the conviction which is felt of the extent of this important deposit of mineral. The quantity of rough ore raised at the Santa Ana Mine between Feb. 1, 1866, and Jan. 31, 1867, had been 2485 tons; the quantity of concentrated or dressed ore proceeding therefrom had been 626 tons, and the quantity of fine silver produced 58,278 ozs., showing an average of 93 ozs. 5 dwts. of fine silver per ton. This produce is considerably below that of the preceding years, and there was reason to hope, therefore, for its improvement. Still a produce of 93 ozs. of fine silver per ton, equal to £24, was a large produce for silver ores, and greatly exceeding per ton that of the mines of Mexico, which have paid large dividends to their owners. The ores of the mine of Valenciana, which paid in past years large sums in dividends to its owners, did not average more than 32 ozs. per ton. The depth to which the Santa Ana Mine is worked is not above a sixth part of the depth of the mine just referred to.

Of course, the important question for the shareholders to determine was as to whether the indications justified a further expenditure of capital. Upon this point the shareholders had been informed that an important work of exploration had been for some time past in operation; a cross-cut had been driven on the floor at the 70 to cut a western lode, which was known to exist in that direction. This had now been driven upwards of 60 fms., and it was confidently expected that the lode would be cut in 4 or 5 fms. more. Should this be the case, the company would then have a fresh source of supply open, which would enable them to be more independent of the bottom stopes, and they can then proceed with the important work of continuing the sinking of the new shaft to the 130, by which means this part of the mine could be worked with much more economy and freedom from accident. What was urgently required at Santa Ana was the extension of the underground workings, to lay open fresh sources of supply of mineral by attacking the lode at new points. The total cost of the Santa Ana Mine from Feb. 1, 1866, to Jan. 31, 1867, was £24,701; and the total returns for the same period were £16,444. The produce of silver was suspended for three months owing to a very serious accident which occurred in the month of August to the engine wheel at the shaft, which necessitated the entire stoppage of the raising of mineral for the time. The second point to which he would direct attention was to the Marmato Mine. It had been seen that those mines had given below that of the preceding years, and there was reason to hope, therefore, for its improvement. Still a produce of 93 ozs. of fine silver per ton, equal to £24, was a large produce for silver ores, and greatly exceeding per ton that of the mines of Mexico, which have paid large dividends to their owners. The ores of the mine of Valenciana, which paid in past years large sums in dividends to its owners, did not average more than 32 ozs. per ton. The depth to which the Santa Ana Mine is worked is not above a sixth part of the depth of the mine just referred to.

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After some explanation from Mr. J. PHILLIPS with regard to the property of the mines, the question was put and the resolutions were carried unanimously.

A vote of thanks to the Chairman and directors terminated the proceedings.

still able to show that only a small loss had been sustained. As to the question of management, he must say the directors had not been very well satisfied, and had made a variety of alterations. A new superintendent had been appointed at Santa Ana and also at Marmato. The superintendent at Santa Ana was a gentleman of very great ability, and they had every reason to be satisfied with him; and at Marmato they had appointed a son of one of the directors. He expressed a belief that by the arrangements now made the whole of the directors would be carried out with greater economy, and a hope, as a large shareholder of affairs, he concluded by moving the adoption of a very different report.

Mr. SPENCER HERAPATH seconded the proposition.

A SHAREHOLDER asked if Mr. Evan Hopkins had been consulted as to the position and prospects of the mines?—The CHAIRMAN said Mr. Hopkins had written his opinion, and the board hoped to have the benefit of his services.

May 17.—Great credit is due to the Marmato Mine agents for the manner in which they have lately prosecuted the exploring works at Aguas Claras. They have not only attended and obeyed the instructions sent to them to disconnect the drivages in the barren lodes below, and confine the explorations to the development of the bunch in the open cutting at the head of the ravine, but they have done the work in such a safe and systematic manner as to lay open the character of this deposit of silver-lead ore, by this economical and judicious system of exploring, also shown, and thus the agents will have no difficulty whatever in laying open all the ore of value which may exist in that part of the property. It is a peculiar formation, therefore difficult to make any estimate of its extent, but whatever that may be the mode which is now pursued there will enable them to extract the ore at a cheap rate. If the same caution and economy system be adopted at Santa Ana to lay open the San Juan part of La Mina de Pleito lodes, there could be no doubt but that they would lead to beneficial results.

Mr. DE PASS (a director), in answer to a question, stated that the unclaimed shares were in the liquidator's hands. The directors could not make a call upon those shares, because there was no one to represent them.

After a lengthened discussion, the report and the accounts were received and adopted. The retiring directors were re-elected, and Mr. John Diston Power was elected a member of the board.

A vote of thanks to the Chairman and directors terminated the proceedings.

EAST DEL REY MINING COMPANY.

A special general meeting of shareholders was held at the London Tavern, on Tuesday.—Mr. CHARLES MORRIS in the chair.

The notice convening the meeting having been read, the circular letter explaining the basis upon which it is proposed to form the new company, and which had previously been circulated among the shareholders, was taken as read.

The CHAIRMAN said it would be in the recollection of shareholders that at the last meeting an adjournment was agreed upon for the purpose of obtaining a report from a gentleman then in Brazil—a Mr. Furst—in order that they might be able to judge whether it was desirable to wind up the company at once, or endeavour to raise more capital for the purpose of carrying on the operations. The report of Mr. Furst had been received, and to the Chairman (he thought) everyone must have come to the conclusion that it was very undesirable not to make some effort to go on with the Morro São Vito Mine. The indications, as explained by Mr. Furst, were of the most encouraging character. Shareholders would bear in mind that this mine had never had a fair trial by the present company, and Capt. Treloar, in his report, estimated it would take about two years before the mine would be placed in a position to produce any results. It had no such workings, for, in the first place, the agent which had taken place had impeded the operations, and when the soil had been cleared a hard car of ground was met with. That, however, had been passed through, and the lode was producing the same features as before, and the bar was encountered. A reference to the report of Mr. Furst would show that there could be no possible doubt as to the auriferous character of the lode, and that it presented strong indications of being very productive; some specimens had been assayed, with satisfactory results—indeed, its general character was such as to induce the conclusion that the lode was of a good auriferous quality. The results that were being realised by the Don Pedro Mine, will, although a few months since were yielding scarcely any profit at all, had, in the month of March returned a profit of over 6300£, should encourage the shareholders of this company to develop their jacutinga formation, it being geologically as that from which the Don Pedro Mine were of the most encouraging results. That was one of the strong points in their own property; it was satisfactory to know that it could be worked at a little expense, while in the meantime the quartz workings would, in all probability, produce something like a return to meet the expense of developing the jacutinga. He would now ask the shareholders to read the special resolution for the carrying out of the objects mentioned in the circular letter.

The SECRETARY read the resolution which embodied the winding up of the company and the formation of a new company.

The CHAIRMAN moved that the resolution just read be adopted.—Mr. AMBROSE seconded the proposition.

After some explanation from Mr. J. PHILLIPS with regard to the property of the mines, the question was put and the resolutions were carried unanimously.

A vote of thanks to the Chairman and directors terminated the proceedings.

WHEAL CRELAKE MINING COMPANY.

The regular meeting of adventurers was held on April 12, when the accounts were presented, and charged up to the day of meeting. A call of 4s. per share was made to meet all liabilities, and render the financial position of the company unexceptionable. A meeting was called for May 17, for the especial business of the company, who were present.

Mr. RICHARD DAVEY, M.P., took the chair, and there were present Messrs. John Bayly, John Haye, T. Currie Gregory, C.E., F.G.S., J. Mathew, Thomas Nicholls, Francis R. T. Gibson, and Capt. William Skewis. After the usual routine business, the agents' report having been read, it was moved by Mr. GREGORY, that the shareholders be given to the lessors of the central portion of the company's limits, for their liberality consenting to grant a new set, and provide it for all workings in their lands for two years from Lady-day last may be postponed, and afterwards to receive a moderate rental only for the use of the facilities afforded by them for working in the Duke of Bedford's lands adjoining, so that the company confines its workings to the western portion of its set, and that it be remitted to the committee to nominate and arrange with the shareholders to act as lessees. It was then moved by Mr. BAYLY that Messrs. Richard Davey, M.P., W. Horton Davey, John Haye, Robert Kerr, John Bell, James Wotherspoon, James Whyte, and G. Stewart Anderson be elected a committee of management, and that the meetings of the committee be held at the company's office at Glasgow, on June 11. It was moved by Mr. HAYE that Currie Gregory, C.E., F.G.S., be the consulting engineer of the company, and that the thanks of the adventurers be given to Mr. Gregory for his services to the company. The thanks of the meeting were given to Mr. Davey for presiding on the present occasion, and for his services at all

the mine, and from the character of the lodes we may reasonably expect that valuable discoveries will be made. I beg to say I am much pleased with the improvements that have taken place in the prospects of the mine since the last meeting.—**Pant Maur Mine:** Our operations have been principally confined to driving and stoping; the lode has yielded an average from 10 to 20 cwt. of lead per fathom. We have sold since the commencement upwards of 50 tons of lead ore from the above mine, but, unfortunately, our capital was not sufficient to work the two mines, and we have done hardly anything since the end of January. The mine is still worthy of further development.—**E. PEARSE.**

A vote of thanks to the Chairman terminated the proceedings, and at the close of the meeting some of the forfeited shares were applied for.

ROSE AND CHIVERTON UNITED MINING COMPANY.

At a meeting of mining agents held at this mine, on May 16, Mr. CHRISTOPHER STEPHENS asked whether he might be permitted to invite the opinions of the agents present, who had inspected the mine that day?

Capt. JOSEPH VIVIAN, of North Wheal Crofty, in reply, said that he gave him great pleasure to respond to the call which had been made, not only for the information of the meeting, but for the public good. The two new lodes discovered parallel with the old East Wheal Rose lodes, which produced such great riches, present precisely the same appearance as those which proved so rich in the old mine, the composition being the same, and are embedded in rock of the same character. Under similar circumstances, when very rich lodes had been discovered in the Camborne and other districts, he had always found the results following which he confidently looked for here. The stuff now being raised from No. 1 parallel lode was as fine looking as he ever saw, and the chance was rich a mine as ever it had been in the past. He had only to say he was glad there was such a good opening for enterprising men of the present day, during the past two or three years large quantities of lead have been recovered from the immense piles of ore at surface, and still larger quantities yet remain, which will leave a considerable profit to the adventurers. The same characteristics as those of the old lodes were to be found over a considerable extent of ground still remaining to be worked.

Capt. JOHN GRENFELL said he was proud to follow such a veteran in mining matters as Captain Joseph Vivian; and he could only say that he most emphatically endorsed what was stated by Captain Vivian, and said he was delighted with the property.

Capt. HANCOCK, from North Wheal Chiverton, was pleased to give his favourable opinion, and expressed himself thoroughly satisfied with the undertaking.

FOREIGN MINES.

ST. JOHN DEL REY MINING COMPANY (Limited).—Advises received May 21, ex steamer *Navarre* via *Bordeaux* :—

Cost and Profit.—The produce for March being	50,119 oits.
Loss in melting into bars	224 oits. = 49,895 oits.
Which, at 7s. 9d. per oitava, is equal to	£19,334 6 3
Cost—Labour... Rs. 59,387 8 76	Rs. 97,741 8 062, exch. Is. 11 1/4d. 9,570 9 7
Other charges... 38,353 8 266	

Leaving a profit on the month's working of £9,763 16 8

GOLD EXTRACTED TO DATE.—The gold return from the stamps for the first division of the month of April, being a period of 11 days, amounts to 16,905 oits. It has been derived as follows:—

Oitavas. Tons ore. Oits. p. ton.

From General stamp... 9924 ... from 1248 2 = 7 250

“ Herring ditto, Bahu ore ... 4320 ... 414 9 = 10 412

“ Lyon ditto, M. and W. Cachoeira 2661 ... 377 5 = 7 049

Total stamps produce 16,905 ... 2040 6 = 8 284

The foregoing return, of about 1536 oits. per diem from the stamps, is fair proportion; it is equal to the average standard yield obtained last month.

DON PEDRO NORTH DEL REY GOLD MINING COMPANY.—Balance of profit and loss account, Jan. 1, 1867. £ 1,693 18 10

Profit for January, February, and March ... 10,611 14 2 = £12,305 13 0

Capt. T. Treloar reports.—The gold return for March amounts to the highly satisfactory figure of 29,056 oits. (= 2313 oits. troy), or 7840 oits. more than that of the previous month.

PRODUCE AND COST.

Product 20,056 oits. at 8s. 6d. per oit. £8528 16 0

Cost 2395 1 7

Profit £6123 14 5

The Maquine Mine is looking well; in fact, as we advance eastward into the hill it is yielding better and better. But whether the increase of gold at present is coming from a bunch, or from some of the main deposits, I am unable to say. I may be mistaken, but my opinion is that it is coming from a bunch; but even so, seeing each successive bunch so much richer than the preceding one strengthens my belief more and more that when we reach the junction of the two hills, and which point is yet some 70 fms. distant from our present works, something grand will be found. At the Mina de Lagoa we have struck jacotings of a kindly appearance, and this, together with the gold from the Buraco da Maquine, and the promise of the property, as a whole, is causing considerable excitement. The weather has been unfavourable for surface operations; but even so, the new washing stakes at Maquine have been advanced a stage. When completed, this work as a whole will be of considerable magnitude, as well as be very suitable for the treatment of our jacotings formations.

ANGLO-BRAZILIAN GOLD.—Capt. T. Treloar reports.—The produce for March amounts to 4247 oits. (= 490 oits. troy), exceeding that for February by 50 oits.

PRODUCE AND COST.

Product, 4247 oits., at 9s. £1911 3 9

Cost 1723 17 1

Profit £187 5 11

The operations have been carried on with regularity. The produce is in excess of that for February. No change has occurred in the favourable appearance of the stone at the deep adit. The lode at the Buraco Secco looks well, and good progress has been made towards work for new 12-head stamps.

RHENISH CONSOLS.—G. Sweet, May 16: Since the breakage of the crank to Bleibach engine it has been repaired, and new brasses placed in the principal bearings. The engine works well. The water is again drawn out of the mines, and operations resumed in the bottom workings, but in consequence of the breakage alluded to but little has been done in the bottom level since my last report. The drivage on the north lode in the adit level is still worth 20 cwt. of lead ore per lachter. A stope in back of this drivage will produce 18 cwt. of lead ore per lachter. In a rise on the middle lode, east of cross-cut, in the 10 lachter level, the lode is worth 7 1/2 cwt. of lead ore per lachter ground very easy; we hope to raise a good deal of ore from this point. At Christiania there is but little alteration to notice since my last, the lode in Pittar's sink being still worth 4 tons of lead ore per lachter, and there is but little alteration in Sweet's sink. Our principal object is to communicate as early as possible Sweet's sink with the 10 lachter level, and Pittar's with the 17 lachter level. These sinks, when holed, will lay open a large quantity of ore ground; and Sweet's sink, when communicated with the 10, will ventilate the adit level, which is very much needed. In driving a cross-cut north, 10 lachters east of Pittar's sink, we have found good stones of lead ore, but the cross-cut is not yet through the lode. We have still water enough to drive Christiania wheel, and every thing connected with the machinery is in good working order.

WEST CANADA.—Capt. W. Plummer, April 15: Huron Copper Bay: The lode in the new engine-shaft is improved, and the ground favourable for sinking. The lode in the 10 fm. level is not so promising as when I reported last. The lode in the 50 fm. level, east of Palmer's, yields 2 1/2 tons per fm., and looks promising to continue. Bray's engine-shaft is being sunk with dispatch; the lode is not much changed. The lode in the 50 west yields about 2 tons. The lode in that level east of shaft is extremely poor. All the stope on Huron Copper Bay are without change.—Wellington: The level driving west of Grenfell's, on new lode, yields about 1 1/2 ton per fm.; the lode is wider than the level.—Crace's Shaft: The part of the lode that we are carrying is poor, but good progress is being made.—Mitchell's Shaft: The lode yields 2 tons per fm., and the 24 east is worth 2 1/2 tons, having lately very much improved.—Colling's Shaft: The lode is very much disordered by its proximity to the floor through which we have lately passed. We hope as we get away from it that the lode will recover its former productiveness. The stope are yielding about the average supply of ore.—Bruce Mine: The lode in the level going east of trial shaft is smaller, and does not contain so much ore; we hope it will again improve. The stope yields about 2 tons per fm. The level west has become poor, but the stope has improved, and now yields 2 tons per fm.—Ferrier's Shaft: The 50 west is much the same as before reported—poor. The lode in the eastern level has somewhat improved, and has been for the past fathom or so very encouraging.—Taylor's Shaft: The lode is poor, but good progress has been made in sinking, and at the end of the present month we intend to commence driving east and west, and we are encouraged to believe that the lode will improve in each direction. This is our troublesome and expensive season, owing to the rapidly going away of the winter's snow, but I am glad to say that this year it has given us less trouble than for the past two or three years. The machinery all works well, and all our works are going on favourably.

FORTUNA.—May 11: Canada Incosa: In the 100, west of O'Shea's shaft, the men have met with a hard bar of ground, and consequently little progress has been made. The lode in the 90, west of Henry's shaft, has improved, and is looking very kindly, worth 1 1/2 ton per fathom. In the 80, west of same shaft, the lode is looking more promising than it has for some time past. In the 70, west of Kennedy's shaft, there is a large, strong lode, containing good stones of lead. The 70, east of Carro's shaft, continues to open good tribute ground, worth 1 1/2 ton per fathom. In the 55 east the lode is small and compact. In the 45, east of San Tomas shaft, the lode continues very small, the granite very hard for driving. The men in Judd's shaft are working hard. The shaft is off the lode and in solid granite. In San Tomas shaft good progress is being made. Francisco's winze is going down in a promising and productive lode, worth 1 1/2 ton per fathom.—South Lode: The lode in the 40, east of San Pedro shaft, is large, and spotted with lead. In the 40 west the lode is very strong, worth 3 1/2 ton per fathom. The 30 west is unproductive. Rosa's winze will open out a piece of moderately productive tribute ground.—Los Baldeos Mine: The 100, west of Morris's shaft, is traversing the main elvan course. In the 90 west the ground is getting easier, and we hope it is near the main part of the lode. In the 75, west of Buenos Amigos shaft, the lode is small and poor. The lode in the 65, west of San Carlos shaft, is divided into sundry small branches. There are some small strings of lead in the 55, west of same shaft, but the lode is valueless. The 100, east of Morris's shaft, is producing good stones of lead, and letting out much water. In the 90, east of Cox's winze, the lode regular, compact, and of a promising appearance. There is no improvement to notice in the 75 east. In the 65, west of San Pablo's shaft, the lode is worth 1 1/2 ton per fathom. In San Miguel's shaft the lode is open and kindly, worth 1 ton per fathom. In Balverde's winze the lode is very compact and firm, worth 1 1/2 ton per fathom; this will reach the 90 in the present month. The lode in Torre's winze is not so good as it was; it is now worth 1 1/2 ton per fathom. In Marin's winze the lode is composed of quartz, carbonate of lime, and lead ore, worth for the latter 1 ton per fathom. Requena's winze is going down in a splendid lode, worth 2 1/2 tons per fathom.—General Remarks: The tribute

department in both sections of the mine yielded a good quantity of mineral in the past month, and has not undergone any unusual fluctuation. The surface work is going on regularly, and the machinery is in good working order. We estimate the raisings for May at 400 tons.

ALAMILLOS.—May 11: The 4th level, west of San Rafael shaft, is hard and poor, with an increase of water. In the 3d level, east of La Magdalena shaft, the lode is large and strong, but not so productive as when last reported on. The lode in the 3d level, east of San Enrique shaft, is very compact, and of a good appearance. The 3d level west has come in contact with a cross-course, which has destroyed the lode. The lode in the 4th level, east of Taylor's shaft, is disarranged by the intersection of a cross joint. The lode in the 4th level west is large and powerful, composed of carbonate of lime, granite, and lead ore. The 4th level, east of San Adriano shaft, has slightly improved. The lode in the 3d level west has undergone a very favourable change; it is a fine looking lode, worth 1 1/2 ton per fathom. In the 3d level west the lode is still influenced by the main slide, and consequently unproductive. In the 2d level, east of Crosby's shaft, the lode has been thrown off its course by a strong lead, and is unproductive. The lode in the 2d level west has been very changeable for several varas in length. There is no change at Magdalena shaft. Nothing has been done to sinking Taylor's shaft since putting down the 11-in. plunger. Since our last report the men have resumed sinking San Yago shaft. In the cross-cut below the 2d level the lode is without much change.

LINARES.—May 11: South Lode : The 110, west of the 143 winze, has fallen off in value since our last, but has a kindly appearance. There is a little improvement in the 75, west of Warne's shaft; the lode is more open, and producing good stones of ore. In the 75, west of Crosby's shaft, the lode is split into small branches, yielding a little ore, but not enough to value. The 75, east of same shaft, is looking very promising, and worth 2 1/2 tons per fm.—East of Engine-Shaft: In the 95, east of Thorne's shaft, the lode is large, speedy for driving, and producing a little ore. The 95 west is poor at present. There is but little improvement in the 75 cross-cut south since our last. The sinking of Taylor's shaft is going on satisfactorily. In the 147 winze we are sinking on the south part of the lode, which looks very promising. No. 153 winze is in advance of the 110, is troublesome for sinking, and letting out water freely.

CASE COPPER.—April 8 to 19: At Ootkiep the sinking of the engine-shaft was progressing favourably. In the bottom of the tunnel the east level had been driven during March 15 ft., the rock continuing hard. Driving south from east level in the bottom of tunnel had passed through blue schistose rock of an easy character, lined on its face of cleavage with copper schist. Captain Clemes says of this level, "In none of the other workings of this mine have we met with such a large and continued extent of this highly favourable copper ore bearing ground." The engine-shaft will be sunk below the east level in the tunnel, and will be an important operation for developing the ore ground in that direction; so far as can be judged the indications are favourable. The yield from Ootkiep during March was 400 tons. The trials at Thorn riper had not resulted favourably; some good stones of ore had been found, but had dwindled out as the shaft advanced. The Ottawa sailed from Hondeklip on April 6 with 340 tons. The Levant has arrived at Swansea with 441 tons, and the Cambrian and Celt steamers being together 136 tons. The Hastings left Simon's Bay, on April 12, for Hondeklip, to load about 550 tons. The furnaces had been smelting Ootkiep dredge ores, averaging 19 per cent., and had produced about 97 tons (Swansea weight) of regulus, averaging about 51 per cent. During the past month 280 tons of ore, ex Celt, Roman and Briton steamers, have been sold at Swansea, at 14s. 6d. per unit, at public bidding, and 500 tons, ex Fearless and Génavon at 14s. 9d. per unit, by private contract.

VAL SASSAM.—Thomas Rickard, May 18: Ursera: Since last reported upon, the end of the Cantina gallery has continued to advance through good ore ground. During April, and for what is gone of the present month, its yield has been upwards of 350 fms. per fathom. The lode is about 4 feet wide, producing stope, 12 to 13 tons of which we have ascertained by sampling will turn out 1 ton of washed ore. The end is taken by four men, at 110 francs per metre. The rise which is making just behind this end is for the present very hard, so that progress is small. The lode in it is turning out ore to the extent of about 16f. per fathom. The middle calcina end is still poor, though the lode is large, and not promising; it is re-set to four men, at 90 francs per metre. The upper calcina end continues to produce a little ore-stuff, but is not yet sufficiently rich to admit of giving it a value per fathom. The ground there is still comparatively easy, driving at 70 francs per metre, and one-third tribute for what can be picked out. The Taylor gallery has been lengthened 160 metres for the month (April). In the last few days the lode has become productive, now worth 10f. to 12f. per fathom. The end is driving by two men, at 60 francs per metre. The Delpozzo gallery is still passing through unproductive ground, driving by four men, at 95 francs per metre. The raisings of March and April have amounted to 8163 kilogrammes. The tribute pitches are taken again, at rates which will average nearly the same as those for March and April, and with the number of hands we can now employ the raisings during the time of May and June will, we estimate, amount to from 10 to 12 tons, or (say) 20,000 francs to 24,000 francs worth of ore. We shall soon be able to advise you of having sent forward another parcel, of about 5 tons, of silver ore. We shall not be so long in preparing the next batch.—Tospino Mine: Next week we shall set to work on the dressing-floors at this mine. The spring is now so far advanced there as to admit of a beginning. We intend to set the miners to work at the beginning of next month. We hope some time next month to be able to deliver a batch of ore to the smelting-works from this mine also.

[ADVERTISEMENTS.]

From Mr. EDWARD COOKE:—Having been in Cornwall some portion of the present week, I am obliged to contract my usual weekly remarks on the state of the Mining Market, &c. Being one of the original lessees of the CHIVERTON MOOR MINE, I deemed it my duty to attend the meeting on Tuesday, with regard to the boundary question, which has been the subject of some controversy of late, I will here remark that the piece of ground in question never was included, nor was it ever intended to be included, in the Chiverton Moor set. From circumstances that have transpired in the workings of this mine, it is very important that it should be added to its boundary. This I have good reason for believing will be amicably arranged in a very short time. As to the prospects of Chiverton Moor, no one can deny but they are of a very high order indeed. It is the opinion of good authorities that the lode, from which several thousands of pounds worth of lead has already been sold by this company is not the rich West Chiverton lode. If this be the case, it adds immensely to the prospective value of the mine, as it is considered an absolute certainty that the lode of the latter mine runs into Chiverton Moor set. With regard to the present position of WEST CHIVERTON, I was informed by the best authority that at no former time was the property so valuable. The shareholders may rest assured that they have a very valuable and lastingly profitable investment. At NORTH WHEAL CHIVERTON I found the works progressing very satisfactorily. The operations are mainly confined to the deeper levels (from which some good silver-lead is being raised), and the sinking of the engine-shaft. Everything tends to confirm the opinions expressed by the most eminent practical authorities, that North Wheal Chiverton can scarcely fail to become a very productive silver-lead mine. It was only on Tuesday last that the manager of the richest mine in Cornwall told me that he had not the least doubt that the main lode in North Wheal Chiverton is the great champion lode of the Old Shepherds' Mine, that gave enormous profits to its shareholders. I made a few remarks last week upon WEST KITTY MINE. I would advise my readers to keep this mine before their notice. At the meeting, on the 17th inst., it was deemed advisable to make a call of 2s. per share, which will pay off all liabilities, and provide for the current quarter's working. In the meantime it is not at all improbable but the returns of tin will materially assist the working costs of the mine, if not be entirely sufficient to pay current expenses. The shares will have a great rise.

From Mr. J. B. REYNOLDS:—During my recent visit to Cornwall, I have been struck more forcibly than ever with the fact that there are several mines which offer more inducement to the investor than any other kind of security I could name. The Rose and Chiverton district (or, as it is better known, the East Wheal Rose district) is literally abounding, I believe, in mineral wealth.

As for old East Wheal Rose, now known as ROSE AND CHIVERTON UNITED, there can be no question of its great importance, and no one appears to call into question the unanimous opinion which has been pronounced in its favour by first-class authorities. I shall never forget my recent visit to the property. NORTH CHIVERTON is now looked at with much favour, and its manager is indefatigable in his exertions to bring about the desired results of labour there. WEST CHIVERTON and WHEAL CHIVERTON are also well worthy of attention. GREAT RETALLACK and PRINCE OF WALES should be carefully watched. Of the WEST KITTY meeting it hardly becomes me to speak. The mine is a success, and perhaps that is the real reason why everyone is pleased. A more satisfactory meeting, however, I hardly ever attended. At first, I rather objected to the amount of the call, but, on reflection, I am satisfied, as the company will stand all the better for having a good balance on the "other side." This mine is worked very cheaply, and the shares have been in quiet demand for some time past, and prices have been advancing, and doubtless will continue to do so—on merits.

From Mr. EDWARD BREWIS:—With Consols at 93 1/2, cheap money, railways looking up, and foreign stocks considerably higher, what are better indications of improving times? Money cannot be always kept locked up at 13 1/2 per cent. for the half year's dividends. There are "Hemps" overlooked in the Mining Market as well as at the "mighty feast," the Darbys, which the representatives of the Tycoon were wont to call it. DON PEDRO shares, I am happy to state, have now arrived at 33 1/2, and with some foundation for this price—quite facts of profits here, totally different from the assumed ones of Frontino and Bolivia, which were passed from mouth to ear two years ago, and the perfect *furor* which lasted some four months is still fresh in the public mind. Well, let Frontino and Bolivia rest. From present appearances the annual profit at Don Pedro North Del Rey is equal to 15 per cent., with prospects of increasing. BULLERS have fallen to 17 1/2, 20. CHIVERTON Moons, which were at 51, on Monday, close 51 to 61. NORTH CROFTY'S have been less active, and GREAT RETALLACKS have materially receded, perhaps to come again. PRINCE OF WALES, on favourable reports, have risen to 54, while CLIFFORDS, after being at 51 1/2,

Mining Correspondence.

BRITISH MINES.

BEDFORD UNITED.—J. Phillips, May 22: The stope in the back of the 115 yields $2\frac{1}{2}$ tons of ore per fm. The three stoves in the back of the 102 yield respectively 4, 3, and 2 tons of ore per fm. The stoves in the back of the 58 are worth 2 tons of ore per fm.—North Lode: The shaftmen are taking down the lode in the shaft, 7 fms. below the 75, which is 20 in. wide, producing some saving work. The lode in the 75 west is 18 in. wide, composed of spar, mastic, and stones of ore. The lode in the 75 east is 20 in. wide, producing saving work. The men in the 62 east are cutting ground for a winze in the 62.

BEDOL-AUR.—H. R. Harvey, May 23: The ground in the shaft is still favourable for progress. We had some nice stones of ore from the eastern end of it to-day. The swallow continues to take the water. I have suspended the 70 fathom level cross-cut, and put the men to clear and sink the winze from the 70 fathom level, on the Seven Stars vein, as it will be necessary for ventilation, when we drive from the bottom of the shaft. Jones's pitch continues to yield about 15 cwt. of ore per fathom.

BLACK CRAIG CONSOLS.—J. Smitham, May 23: The lode in the 54 east, on Harriett's lode, has made a splice, and is producing but very little lead. The lode in the 54, driving east o. No. 1 cross-cut, on the new discovery, is producing from 4 to 5 cwt. of lead per fm. The lode in the 54, driving west of No. 2 cross-cut, in the 54 west, is producing 10 cwt. of lead per fm. We are making fair progress in driving the 54 west on the black stone, and in about another fortnight we shall be far enough forth for another cross-cut. The stoves, on an average for the whole length, will produce about 30 cwt. of lead per fm.

BOSWORTHEN AND PENZANCE CONSOLS.—Richard Pryor, F. Hosking, May 23: Jones's shaft is sunk as deep as we can for the water. The shaftmen are now busily engaged clearing the deep adit, which up to this time has been very troublesome. We are daily expecting to get through the choke, when we shall at once be able to resume the sinking of the shaft to the deep adit level without the aid of pitwork. The lode in the shallow adit, west of Jones's shaft, is 2 ft. wide, producing stamping-work for tin. The lode in the stoves in back of the 70, also producing saving work for tin.—Carnbrea Lode: The lode in the stoves, north of Daniel's shaft, is worth 6t. per fathom. All other places are without change to notice since our last report.

BOTTLE HILL.—Joseph Eddy, May 23: Main Lode: The tribute and tint work ground is turning out about its usual quantity of tin. The north lode is about 3 feet wide, producing tin, but not sufficient to pay.—South Lode: The lode in the 24, west of shaft, is still small. The tribute ground in the back of the 12 is turning out tin-stuff of moderate quality.

BRONFLYD UNITED.—T. Kemp, May 22: The stope under the 52 is opened 16 ft. from the north wall towards the south part of the lode, and is worth $3\frac{1}{2}$ tons of lead ore per cubic fathom for that width. The part of the lode still standing to the south of this working is looking well. This lode, for the breadth opened (16 fms.), is yielding over 9 tons of lead, worth 12s. per linear fathom, while the cost of breaking is only 7s. per cubic fathom. The stope west of the winze, in back of the same level, produces 18 cwt. of ore per fathom, and that to the east 12 cwt. per fathom. The new shaft is in regular course of sinking by a full staff of men; ground is rather stiff.

BRYN GWTION.—Stephen Harper, May 22: In the 102, driving east from engine-shaft, the lode is 3 ft. wide, of much the same character as last reported, but with an improvement for lead ore—a very promising-looking lode. The lode in the bottom of the same level is worth $1\frac{1}{2}$ ton per fathom; lode large. The lode going west from winze still continues good, and keeping, so far as seen, its regular bearing north-west; it is about 3 ft. wide, worth 4 tons per fathom. There is now about 6 or 7 ft. of horse between the old level and the course of lead ore. I intend to continue on this level a little further, by taking down the side, as I have already done; and should it still continue I shall go west, and drive a cross-cut north, to prove this lode nearer the shaft. The 90 west has been communicated to No. 1 winze fro. o. the 75, with a good lode at the hoisting point. We are now working the back with eight men; lode worth $2\frac{1}{2}$ to 3 tons per fathom. I have put the winzemen to sink in bottom of the 90, on a lode worth 2 tons per fathom. The lode in the 75 west is about 3 ft. wide, composed of soft spar and clay, and occasionally producing five lumps of lead ore—a most promising-looking lode as I have seen for some time past; very easy for progress. I am of a strong opinion we shall have a good lode in this end shortly. We have commenced the sinking of Bramwell's shaft from below the 66, and hope to make good progress to the 75, partly through the old men's workings. In the meantime we shall prepare our surface-work for drawing with the fire-whim, by fixing pulley-stands, pithead, skip-road, &c. Our pitches throughout the mine continue to yield fair quantities of lead ore. On the whole, our prospects have not looked better for some time past.

CALDBECK FIELDS.—W. Francis, May 17: In the 90 west, on north lode, we are driving a cross-cut to prove the south side of the caunter lode; driving by six men, at 12s. per fathom. There is no change worthy of notice in the cross-cut driving north from the 90 west, on south lode; driving by two men, at 12s. per fathom. The ground is harder for progress in the 90 east, on south lode; driving by four men, at 5s. per fathom. The cross-cut driving north, towards the engine-shaft, from the 90 west, on south lode, is now about 1 fm. from the shaft, but we have turned the cross-cut a little out of its former direction, in order to cut the lode that passes through the shaft; this will be the means of drawing the water out of the shaft, and we shall then be enabled to approach it with safety; driving by six men, at 6s. per fathom. We are putting up a rise in back of the 90 west, on south lode, in order to prove the lode; rising by two men, at 21. 10s. per fathom. The lode in the 80 west, on north lode, still maintains its value, and is worth for copper and blue lead 1 ton, 10 cwt. per fathom; driving by four men, at 12s. 12s. per fathom. We have suspended for the present the driving of the 80 east, on south lode, and are now putting up a rise in the back of the level, in order to open out ground for stopping; the lode in the rise is worth for phosphate and grey lead ore 8 cwt. per fathom; rising by two men, at 21. per fathom. About 16 fms. west of this rise we have two men stripping down the side of the level, preparing for stopping; the lode is producing good saving work for phosphate and grey lead ore. In the back of the 70 west, on north lode, we are putting up a rise, the lode in the same being worth 12 cwt. of blue lead ore per fathom; rising by two men, at 12s. per fathom. We are also putting up a rise in the back of the 70 west, on the caunter lode; the lode in this rise is worth 12 cwt. of blue lead ore per fathom; rising by four men, at 12s. per fathom. In the 60 west, on north lode, we are driving on the course of the lode, and it is of a very favourable character, producing good saving work for blue lead; driving by six men, at 6s. per fathom. We are still continuing the driving of the cross-cut north in the 80 fm. level west, on south lode; driving by two men, at 11. 17s. 6d. per fathom. The lode in the 20 west is of a more kindly nature, and from its present appearance bids fair for further improvement; driving by six men, at 10s. per fathom. The lode in the intermediate level, at Mexico, still continues the same as last reported; driving by four men, at 21. per fathom. Oat's stope, in the back of the 90 fm. level, is worth 2 tons of blue lead ore per fathom; stopping by four men, at 5s. 5s. per fathom. Macintosh's stope, in back of the 90, is worth 15 cwt. of blue lead ore per fathom; stopping by four men, at 5s. 10s. per fathom. Moffat's stope, in back of the 80, is worth 2 tons of blue lead ore per fathom; at present we are clearing work, and putting in stull in these stoves; when this is accomplished we shall resume stopping. Hewer's stope, in back of the 30 fm. level, is worth 18 cwt. of blue and grey lead ore per fathom. Brown's stope, in back of the 30, is worth 1 ton 8 cwt. of blue lead ore per fathom; stopping by two men, at 4r. per fathom. Ashbridge's stope, in back of the 30, is worth 1 ton 15 cwt. of blue and grey lead ore per fathom; stopping by four men, at 4r. per fathom. The end driving east from Wilkinson's stope, in back of the 30 west, is of a more kindly nature, and from its present appearance bids fair for further improvement; driving by six men, at 10s. per fathom. The lode in the intermediate level, at Mexico, still continues the same as last reported; driving by four men, at 21. per fathom. The parcel of blue ore mentioned in my last report (computed 25 tons, exclusive of duty ore) was sold for 15. 16s. per ton; and the parcel of grey ore (computed 25 tons, exclusive of duty ore) was sold for 9. 10s. per ton.

CAPE CORNWALL.—R. Pryor, W. White, May 22: The lode in the rise in the back of the 90 east is worth 30 per fathom. The lode in the stope west of rise is worth 6t. per fathom. The lode in the rise in the back of the 70 west of shaft is $3\frac{1}{2}$ ft. wide, and producing good stones of copper ore—a kindly lode.

CARADON CONSOLS.—S. Bennett, May 21: The 90 west looks more promising to-day, although the leading part of the lode is still small, yet it is good work, especially towards the bottom of the end, which has been a characteristic in this level throughout; the granite, too, is somewhat more decomposed. The 80 west is producing some ore, but not to value. The winze below this level is hoisted to the 50, and has produced good ventilation throughout. The rise above the 54 has just passed through a capel lode, 2 ft. wide, seen in the 54, some 20 fms. to the north of Clymo's lode. It contains a small quantity of mastic, but no other metallic substance. The shaft is progressing favourably.

CARDIGAN CONSOLS.—H. Bound, May 21: Since the meeting in March the new engine-shaft has been case and divided, and ladder-road fixed complete from the adit to the 10. The 10 east has been extended 6 ft.; the 10 west, 5 ft. We have also stripped the lode down, in order to ascertain its width. In the 10 east it is about 15 ft. wide, with rich bunches of copper ore throughout; it is almost impossible to set a value on it until we get more ground laid open. In the 10 west the lode is 6 ft. wide, with a slight mixture of lead and copper ore—a very kindly lode, presenting the most promising appearance, and ought to be driven on with all speed. The air-shaft has been sunk 1 fm.; the rise to meet it has been carried up 4 ft., leaving $3\frac{1}{2}$ fms. of ground between, and could be communicated in about three weeks; more work ought to have been done, but we could not get the men to do it. We would recommend the following points to be carried on:—The adit east to be driven by four men as soon as the air-shaft is communicated with the adit; four men to sink a winze below the adit to meet the 10 east; six men to drive the 10 east; four men to drive the 10 west; six men to sink the engine-shaft to another level; but this we could not begin for two months. This being done, I have not the slightest doubt but that we shall lay open a very valuable mine.

CLARA UNITED (Llywernog).—J. Davis, May 22: The engine-shaft is now down to the required depth, and we have commenced a 62 fm. level, the bottom of which is 12 fms. clear from the bottom of the 50. Since the lode has come in the ground here has been very wet, and difficult to work. The south lode is very open, and the shaft now drains the cross-cut to that lode in the upper levels. No. 2 stope, in back of the 50, is worth 20 cwt. of lead ore per fathom. No. 3 stope yields 30 cwt. per fathom. The stope in back of the 40 is worth 20 cwt. of ore per fathom. The winze above the 40 yields 20 cwt. of lead per fathom.

CROWAN AND WENDRON.—R. Reynolds, May 21: The engine-shaft is 3 fms. below the adit; the lode is 2 ft. wide, and has very much improved in quality the last 3 feet sinking, producing at present good saving work for tin. We have cleared about 10 fms. on the south tin lode.

CUDRA.—F. Puckey, A. Cundy, May 22: We have commenced to drive the 142, west of Walker's shaft, by the side of the lode; we hope to make good progress in driving back under the tin ground that is gone down below the 130. In the 130, west of the shaft, we are cross-cutting the lode about 8 fms. west of the winze; we have driven through the capels, and cut into the lode about 2 ft.; so far as seen the lode is good for tin; this is looking well for the main branch of tin to be still making good west of the cross-course. In cutting out the lode west of No. 1 cross-cut, the lode is still disordered, being in the influence of the cross-course. The lode and capel continue full 15 feet wide, but at present only producing work of a low quality for tin, worth 18s. per fm. for that width. In the stope in the back of the same level, east of the cross-cut, the lode is 12 ft. wide, but not quite so good for tin as last reported on, now worth 20s. per fm. for that width. In the 130, east of the shaft, we are driving a cross-cut north to cut through the lode; we have cut into it 9 ft.; the lode is of a very promising character, composed of quartz, pebbles, and iron, and producing a little

tin. In the stope in the bottom of the 117 west the lode is 9 ft. wide, and worth 16t. per fathom.

DALE.—R. Nine, May 20: The character of the vein in the 32 northward continues the same. We have again commenced forking the water below this level, and the ground is drained as far as we have yet gone. I have, therefore, put the men to sink in the bottom of this level to prove as much of the ground here as we can whilst the water is being got out of the cross-cut, which will be resumed as soon as possible.

DALE.—R. Nine, May 23: We have resumed the 44 cross-cut on Wednesday; the vein is very strong, composed of spar, flookan, chert, and clay, and every effort is being made to push on the cross-cut as fast as possible. We are getting some good stones of ore in the bottom of the 32, and the vein looks most promising.

DEVON AND CORNWALL UNITED.—Thos. Neill, May 21: The lode in the bottom of the deep adit level is not quite so good, worth 6 tons per fathom.—William and Mary: The lode in the 46 east is improving, producing some saving work for copper ore. The lode in the 34 east is looking well, worth 4 tons per fm.

DEVON WHEAL FRANCES.—Wm. H. Hosking, May 23: Since we intersected operations at this mine, in November last, we have extended the cross-cut adit level, south of No. 1 lode, a distance of 30 fms.; at this point we intersected No. 2, or Blanchard's lode, through which we have also driven, and I have much pleasure in informing you that we find it to be a very fine masterly lode, about 20 feet wide, underlying 3 feet in a fathom, and of a very favourable bearing, being some few degrees south of east; it is composed of capel, spar, prian, and mastic, and is carrying a branch of copper ore on the north side 9 inches wide, worth quite 10s. per fathom, and improving as we extend westward. I should explain that this lode is intersected at a depth of 20 fms. from surface, through which ground it is standing entire, and from which and an extension of the drivage, judging from present appearance, we may reasonably expect fair returns of copper. I have for the time suspended the cross-cut south, and placed the men to assist in forcing on the western end into the productive ground; we can hereafter resume the cross-cutting southward, in which direction we have other lodes, apparently of equal promise with the one we are now driving, and as we shall, through the precipitous rise of the hill, cut them at greater depth, equally satisfactory results may be anticipated. Comprehensively speaking, I am much pleased with the property; I have seldom met with strata more generally mineralised, and regarding this, together with the strong character of the lodes, and their close proximity to the junction of the granite and killas, I feel that only a very moderate outlay is needed in laying open the property to ensure remunerative sales of copper ore.

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DEVON WHEAL FRANCES.—Wm. H. Hosking, May 23: Since we intersected operations at this mine, in November last, we have

ains in hand a balance of 18,535L 3s. 1d. in cash, ore bills not at maturity, and a reserved fund applicable to the general purposes of the company.

At East Wheal Seton meeting, on May 15, the accounts showed a debit balance of 396L 13s. 3d. A call of 2s. 6d. per share was made. A very expensive 40-in. cylinder engine, with other materials and account-house furniture, having been recently purchased by Messrs. Joseph Vivian and Son, for 466L 10s. the same being almost new and in efficient working order, fifty guineas were allowed them as an acknowledgment for having made this very advantageous purchase. As there will now be much extra duties to be performed, arising by the erection of the engine and the more extended operations of the mine, the following are the salaries of the agents of the mine:—Mr. Almond E. Paul, 4L 4s. per month; Capt. Joseph Vivian and Son, 4L 4s.; Capt. William Thomas, 2L 2s.; Mr. George Bennett, 1L 1s.; and Mr. W. R. Reynolds, 1L 1s. per month. The owner and managers of the mine are empowered to receive tenders from competent persons for the immediate removal of the engine from West Condorrown and the erection of it complete, including all buildings connected therewith, also the providing of all materials that may be necessary, and to ascertain that which they may consider to be the best tender. Captains Joseph Vivian and Son and W. Thomas, Jun., say:—“We have only to remark, in connection with the above, that we have every prospect of being able to push down our engine-shaft rapidly and at small cost, and we shall thus open up a highly profitable mine.”

At West Wheal Frances meeting, on May 16, the accounts showed a debit balance of 670L 19s. 7d. A call of 1L per share was made. Capt. Chas. Thomas, Chas. Craze, and Henry Rabing say:—“During the first ten weeks of the past year the tinstaff from the stope did not yield as much tin per ton for the twelve preceding months, hence a less quantity sold this quarter. In the last two or three weeks the former average has been maintained, which we hope may be continued.”

At Wheal Owles meeting, on May 17, the accounts for Jan., Feb., and March showed a debit balance of 304L 3s. 5d. Work performed during the quarter—175 fms. 0 ft. 5 in. driven in levels, and 29 fms. 4 ft. 6 in. sunk in shafts and winzes; 36 paars stowing out for tin, and 26 pitches on tribute. They have about 75 tons of tin unsold.

At West Wheal Kitty general meeting, on May 17 (Mr. J. B. Reynolds in the chair), the accounts to that day showed a balance against the company 22L 4s. 10d., and a statement of assets and liabilities, showing a nominal value of 82L 12s. 6d., to which may be added a sum of 132L 9s. 1d. as a doubtful asset—making in all a total liability of 215L 1s. 7d., to liquidate which a call of 2s. per share was made, and it was resolved to take immediate proceedings in the Stannaries Court against all shareholders in arrears of call. Mr. William Watson was appointed purser in the room of Dr. Whitworth, resigned.

The committee, in their report, refer with much pleasure to the very successful termination of all legal proceedings which they have taken in the interest of shareholders; to the great reduction of the bankers' balance against the company; to the small amount of arrears due; and to the very improved state of affairs in every respect, and they assure the shareholders that these objects have been attained without great labour and personal expense. The agents report that, with the present prospects, they anticipate nearly paying costs.

At the Cardiganshire Lead Mining Company meeting, on Thursday last (Colonel Jameson in the chair), the report of the directors was received and adopted. Details in another column.

At the Marquita Mining Company meeting, on Monday (Mr. Routh in the chair), the report of the directors was received and adopted. Details in another column.

At the Yorke Peninsula Mining Company meeting, yesterday (Mr. James Roberts in the chair), the report of the directors (referred to in last week's journal) was received and adopted. The directors were empowered to issue the remainder of the debentures, bearing an interest of 15 per cent.

At the Rossa Grande Gold Mining Company meeting, on Tuesday last (Mr. George Noakes, F.G.S., in the chair), the directors' report was received and adopted. Messrs. R. Hesketh and H. Haymen join the direction, the latter accepting the chairmanship. The reserved shares are to be offered to the Don Pedro and Anglo-Brazilian Companies' shareholders at par. The Rossa Grande state has been inspected by Capt. Thomas Treloar, and his report is of a most encouraging character. He recommends the purchase of an adjoining property, which has many important advantages. Details of the meeting will be found in another column.

At the Vancouver Coal Mining and Land Company meeting, on Friday, the report of the directors, to be submitted, states that there has been a decrease of 7704 tons in the shipments of coal for the year 1866, as compared with those for 1865. The directors are still unable to report the final settlement of their claim against the underwriters, in respect of the insurance of the Fidei-Trust. Mr. John Will has been deputed to visit Vancouver Island, to examine and report upon the present condition and management of the company's property, and he arrived at Victoria in March last. The directors have entered into arrangements with the governor and committee of the Hudson's Bay Company to pay the balance of purchase-money by four annual instalments. In their last report the directors recommended that the balance of profit then remaining undivided should be carried forward for disposal at the annual general meeting. By the statement of profit and loss now submitted, it appears that the sum of 4600L 9s. 8d. is the net profit undivided to December, 1866.

At the Great Barrier Land, Harbour, and Mining Company meeting, to be held on Tuesday, the directors' report will show that the balance against revenue has increased from 3435L 3s. 5d. to 4623L 2s. 10d.; but against his estimated value of farms, has increased from 11,816L to 12,185L; and still more favourable figures would, probably, have been shown had the land returns to Dec. 31 been received. The price of timber continues depressed, and the working of the saw-mill is, therefore, still suspended. It will be necessary to raise additional capital to secure success, for which there is an ample field.

The Bank of England return for the week ending on Wednesday was particularly favourable. In the ISSUE DEPARTMENT there was shown an increase in the notes issued of 440,310L, which is represented by the corresponding increase in the coin and bullion on the other side. In the BANKING DEPARTMENT there is shown on the liability side of the account an increase in the “public deposits” of 1,050,652L, and in the “rest” of 2412L, together with an increase in the “other deposits” of 327,871L, and a decrease in the seven days and other bills” of 29,531L, together 357,402L, leaving a nett increase of 685,662L, which added to the decrease of 136,184L in the “other securities” on the asset side of the account, shows an increase in the total reserve of notes and coin of 821,846L. A general improvement in enterprise appears to be arising in the market, in consequence of the improvement in monetary affairs, and several new undertakings are to be launched in the course of the next few days.

THE COPPER TRADE.—Messrs. Vivian, Younger, and Bond (have made) write:—There has been but little enquiry from any quarter. Buyers have looked to getting their wants supplied at a considerable reduction on last week's prices, but sellers are not prepared to make any important concessions. We have no special business to report. The market closes very quiet, both buyers and sellers being quite content to look on for the present.

On the Stock Exchange a considerable amount of business has been transacted in Mining Shares during the week. The following quotations were officially recorded in British Mining Shares:—New Seton, 2L 1s.; Great Wheal Vor, 1L 1s.; West Seton, 1L 4s.; Wheal Seton, 120, 125, 2L 1s.; Great Laxey, 18, 18s.; East Caradon, 5L 5s.; East Carn Brea, 2L 1s.; West Chiverton, 66L; Prince of Wales, 2L.—In Colonial Mining shares the prices were:—Port Philip, 1L; Yudanamata, 1L, 1L 15-16ths, 2L; Vancouver Coal, 2L.—In Foreign Mining Shares the prices were:—Chontales, 3L, 2L 15-16ths, 2L; Don Pedro North del Rey, 2L, 2L, 2L 1s., 2L 15-16ths, 2L; Pestarena, 2L, 3L; United Mexican, 1L; Calcutta, 1L; Anglo-Brazilian, 1L, 1L 15-16ths, 1L, 15-16ths; St. John del Rey, 5L, 58, 59, 62, 61.

THE CARDIGANSHIRE MINES, AND THE ANCIENT BRITONS.—So many of the readers of the *Mining Journal* are interested in the development of the mines of Cardiganshire, that the ancient history of a large section of the district in which they are situated cannot fail to be generally interesting; it is, therefore, gratifying to find that so excellent an authority upon the archaeology of the county as Mr. J. G. WILLIAMS, of Gloucester Hall, near Aberystwyth, is undertaking the task of providing “A Short Account of the British Encampments lying between the Rivers Rhedol and Llyfnant, in the County of Cardigan, and their Connection with the Mines.” The district which Mr. Williams describes embraces a large number of mines, the oldest, which he considers were evidently worked by the Britons, being Altis-y-Crib, Esgair-Hir, Darren, Peniarth, Nant-yr-Arian and Blaen-y-fryd-uch, and the Bwthw Rhugos. The several encampments, he observes, show great military talents and foresight of nearly inhabitants of the district in seeing the necessity of protecting their country from invasion by the sea; and from the fact of only one inland encampment at Dinas, near Ponterwyd,—being found, he concludes that the inhabitants were free from internal disputes, and had nothing to fear but from foreign enemies. In order to remove any doubt that might arise as to whether these encampments are of the true British type, or intermixed with the Roman, the author carefully gives a comparative account of the two kinds of structure, and points out the close similarity between, and absolute identity with respect to, certain leading features—the square with four gates, and the use of stone as material, for example—in all the encampments acknowledged to be of Roman origin. Dinas, the principal British encampment, is 412 ft. above the level of the sea, and commands a view of full 30 miles inland on the north-east, and south on the west of the sea, which formerly flowed to the base of the hill on which it is situated. The highest point of the hill he considers as the place where the beacon-fire was lit, at the warning of an invasion from the West, since the encampments of Burdwall, Broncastellan, Darren, Altigoch, and Carnwen are visible from it. After describing the various caers and dinases, and pointing out their probable relative importance to the Ancient Britons in a military point of view, Mr. Williams turns to the consideration of the mining interest, and refers to the laws of Dvynval Moelmod, the great lawgiver who reigned over Britain in the year 3629 A.D., and was, consequently, contemporary with the prophet Daniel. In his 49th triad he lays it down that “there are three kinds of property common to the country—acorn wood, the pleasures of the chase, and an iron mine, for these are not the peculiar private property of any person. And a triad 50 “there are three kinds of private property, arising to a man from the three kinds of common property of the country and of the tribe—these are game after the skin is stripped off, acorns when gathered, and iron ore when dug from the mine.” So in other triads he decrees that “there are three kinds of natural arts belonging to the tribe of Cambrians—the art of wisdom, the art of metallurgy, and the family arts.” So, again, “there are three arts which bondmen ought not to learn without the permission of their masters and the lord of the district—bards, metallurgy, and scholarship.” And, further, “there are three kinds of slaves, being bondmen, who become free—the bard, the metallurgist, and the scholar.” Mr. Williams, not unnaturally, compares these liberal laws existing from so early a date in Wales with those which obtained in Scotland, mentioning as a fact worthy of notice in this district, that where there is a group of encampments there is a group of mines also. Although only a small book, “British Encampments” contains a large amount of information, and will well repay a careful perusal.

TO LARGE CAPITALISTS OF COAL MINES.—One of the most important discoveries of our century is just now made in Belgium. This discovery consists in MAKING SLACK COAL EQUAL TO BLOCK COAL. It heats better, lasts longer, costs very much less, burns without smoke or smell, scarcely any ashes, and is of the simplest fabrication. Apply for conditions of selling to Monsieur LUC LEROY, 10, Walham-green, Fulham, London.

TO LANDED PROPRIETORS AND MINING COMPANIES.—WANTED, by a Person 34 years of age, of gentlemanly address, a SITUATION, either home or abroad. Is thoroughly conversant with accounts, is a practical mapper, dialler, and surveyor, and has a good practical knowledge of mining. First-class references. Address, “B. B.,” Post-office, Gunnislake, 22, Cowper's-court, Cornwall.

IRON AND TIN-PLATE TRADE.—A LONDON TRAVELLER is REQUIRED by an OLD-ESTABLISHED HOUSE. To a gentleman thoroughly competent, and with a connection, liberal terms will be made. Address, with full particulars, to “T. P.,” care of Vickers and Harrington, 2, Cowper's-court, Cornwall.

SPAIN, SOUTH AMERICA, &c.—TO MINING COMPANIES, CONTRACTORS, &c.—A GENTLEMAN of experience in commercial affairs, and possessing a thorough knowledge of the Spanish language, is OPEN to an ENGAGEMENT AT HOME OR ABROAD.—Address, “A. B.,” care of Mr. Eden Fisher, Stationer, 50, Lombard-street, E.C.

VALUABLE GOLD AND SILVER MINING PROPERTY FOR SALE.—THE ADVERTISER, a late resident of the territory of Colorado, a rich mining region in the United States, and at present an Exhibitor at the Paris Exposition of a large collection of Colorado ores, OFFERS FOR SALE some of the choicest GOLD AND SILVER MINING PROPERTIES in the territory, the value of which can be illustrated by specimens of ore, photographs, and maps at hand. The advertiser will hold himself strictly responsible for any statements he may give concerning such properties to purchasers, and being one of the largest owners of mining property in Colorado, and having a permanent office and resident agents of scientific attainments there, believes he is well qualified to give satisfaction. Information concerning the location of Colorado Mines, their wealth, &c., can be obtained upon application. References of the first character given.

Address, J. P. WHITNEY, 80, Lombard-street, London, E.C. (Commissioner from Colorado to the Paris Universal Exposition, and Author of the work entitled “Silver Mining Regions of Colorado.”)

WANTED, a GOOD PRACTICAL LEAD SMELTER, who thoroughly understands CALCINING and SMELTING LEAD ORES, DESILVERISING and REFINING SILVER. Terms liberal. Good references required.—Apply, by letter, to HENRY ROBINSON, Esq., No. 7, Westminster Chambers, London.

WANTED.—A RE-ENGAGEMENT AS COLLIERY MANAGER.—Many years' experience and first-class testimonials. No objection to go abroad.—Apply to “H. M.,” MINING JOURNAL OFFICE, 26, Fleet-street, London.

WIREWORK AND STAMP GRATES.—W. ESCOTT TAVISTOCK, DEVON, having purchased FIRST-CLASS MACHINERY for making the above, is PREPARED TO FORWARD PRICES on application.

TO CAPITALISTS.

VALUABLE SLATE QUARRY, CARNARVONSHIRE.—FOR SALE, by PRIVATE CONTRACT, by order of the liquidator, a VALUABLE AND EXTENSIVE SLATE QUARRY, known as the EAST and WEST DOLBEBIN, situated in the parish of LLANILLYFINI, in the vale of NANTILLE, in the county of CARNARVON, comprising about 90 statute acres, and held for the remainder of a lease of 21 years, of which about 19 are unexpired, and with power to renew for 21 years more, on payment of a small fine, at the yearly rent of £50, or one-twelfth of the nett profit, at the lessee's option, but no royalty, and including all the houses, cottages, sheds, buildings, store-rooms, &c. The enormous demand for roofing slates, and the absolute certainty of immediate sale for all that can be produced, together with the fact that several thousand pounds have already been expended to bring the quarry into working order, renders this a most eligible investment, rather than a speculation. The natural facilities for the removal of rubbish are such that the simplest methods are practicable, with the smallest possible outlay. The slate is of a fine blue colour, free from spots or stripes, and has a clear level split, and there is an abundant and constant supply of water for driving machinery running through the property, which is intersected by a branch of the turnpike road from Carnarvon to Nantlle; distant from Carnarvon nine miles by road and tramway, and adjoins the Carnarvonshire Slate Company's Quarry, which has been long and profitably worked on the same veins. The circumstances under which this valuable property is brought into the market render it an opportunity seldom met with.

Apply to H. G. NICHOLSON, Esq., 7, Norfolk-street, Manchester, the liquidator; or to Messrs. MARSLAND and ADDLESHAW, solicitors, Royal Insurance Buildings, 67, King-street, Manchester.

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TRANSFERS, &c., should be ADDRESSED to the MINE, and not to the Purser's residence, at Penzance. E. H. RODD, Purser.

LANFAIR GREEN AND BLUE SLATE QUARRY COMPANY (LIMITED).—Manager, T. HARVEY, Esq.—TO BE SOLD, FORTY SHARES, at £1 per share. No calls.—Address, “A. B.,” MINING JOURNAL OFFICE, 26, Fleet-street, London, E.C.

COAL WAGONS.—TO BE LET, on redemption terms, for three, five, or seven years, TEN secondhand 12 tons BROAD GUAGE WAGONS.

Apply to the United Kingdom Railway Rolling Stock Company (Limited), 9, King's Arms-yard, Moorgate-street; or to A. KINDER, Esq., 92, Cannon-street, London.

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STEAM-BOILERS made by WILLIAM WILSON, LILYBANK BOILER WORKS, GLASGOW, on the most improved principles, for home and export. All boilers made of the best material and workmanship, proved and warranted tight under a high pressure, and delivered at any railway station or shipping port in the kingdom at moderate rates. Lithograph of boilers forwarded post-free on application.

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ONE 40 in. PUMPING ENGINE, only made a short time, and as good as new, with an 11 ton BOILER. A 24 in. WHIM ENGINE, with stamp attached. ONE 11 ton BOILER. Several WATER-WHEELS of various sizes, one with a very excellent drawing machine attached. Pumps and materials of all sorts and sizes.—Application may be made to Mr. W. MATHEWS, engineer, Tavistock, or can be seen on application to people in charge of the mine.

PUMP-LIFTS.—TO MINING COMPANIES, AND OTHERS.—The EXECUTORS OF JESSE VARLEY, BROOKFIELD FOUNDRY, ST. HELEN'S, LANCASHIRE, having PATTERNS for all sizes of PUMP LIFTS, and being specially PREPARED for their MANUFACTURE throughout, are in a position to supply them at reasonable prices, and with speed.

Estimates for the lifts complete, or price per cwt. for the pump trees alone, forwarded on application.

M. R. MORGANS (late of the Blendon Hills Spathose Ore Mines) and his SONS have ESTABLISHED themselves in BRISTOL, as CONSULTING ENGINEERS, &c., and they are PREPARED to EXAMINE, REPORT ON, and LAY OUT any COLLIERIES, IRON, LEAD, TIN, and COPPER MINES, and to DESIGN and, when required, SUPERINTEND the ERECTION of every class of MINING MACHINERY, PUMPS, and APPLIANCES, treating all subjects in a PRACTICAL MANNER, with due regard, where outlay is required, to FIRST COST and FUTURE RESULTS.

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ANALYSES OF COAL, CANDEL, MINERAL OILS, and all OIL PRODUCING MINERALS are UNDERTAKEN by A. NORMAN TATE, F.A.S.L., &c., ANALYTICAL and CONSULTING CHEMIST, and CHEMICAL ENGINEER (Author of “Petroleum and its Products,” &c.).

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Assays of metals and their ore carefully conducted.

NOTICE.—CAPT. S. M. RIDGE, of LLANIDLOES, MONTGOMERYSHIRE (late manager of the Brynystig and Cwmyfro Mines, and others, in Shropshire and Wales), is NOW OPEN to INSPECT and FAITHFULLY REPORT UPON ANY LEAD MINE in either of these localities that may be confided to his care, having had better than 30 years' experience in lead mining, as miner and agent.—Address, Capt. S. M. RIDGE, Llanidloes, Montgomeryshire.

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Foreign mines supplied on the best terms, and at the shortest notice. Second-hand Mining Machinery and Pitwork in Stock; also a new 4 and a 2-horse power high-pressure vertical engines, with boilers,

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WATSON AND CUELL,
MINING AGENTS, STOCK AND SHARE DEALERS, &c.
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

MESSRS. WATSON AND CUELL having made arrangements for transferring their weekly Circular, which has had so large a circulation during the past ten years, to the columns of the *Mining Journal*, their special sports and remarks upon mines and mining, and the state of the share market, will in future appear in this column.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. WATSON, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium, published in 1843, Mr. WATSON was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. WATSON and CUELL have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share dealing than there is at present; and, from the lengthened experience of Messrs. WATSON and CUELL, they are emboldened to offer, thus publicly, their best services to all connected with mines or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON and CUELL transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years active connection with the Mining Market.

Messrs. WATSON and CUELL also inform their clients and the public that they transact business in the public funds, railway, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON and CUELL are also daily asked their opinion of particular mines, as well as to "recommend" mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON and CUELL having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are able to supply shares in all the best mines at close market prices, free of all charge for commission.

MINERAL RIGHTS.—We have received so many letters upon this company's affairs that we scarcely know how to answer them, especially in the absence of all official information. As regards our own shares, our *prima facie* view is that the company having failed in the primary object for which it was formed, we should like to get as much money back through a voluntary winding-up as we can. On the other hand, if the directors can show that they have acted prudently and well with our funds, and are likely to realise a considerable profit from judicious investments, we think they should be supported in carrying out their present operations to the end. We have no doubt in our own minds that Chontales shares will double in price, and if the Mineral Rights Company hold a large interest in them, bought at a discount, the purchase must result in a large profit to the shareholders. We hear complaints, however, that the salaries of the directors and officials are high, the powers under the Articles of Association almost unlimited, and the shareholders liable to heavy calls; but all these things might be modified if the company were to go on, and when the directors' report appears we shall all be better able to form our opinions, and to express them.

THE ASSESSMENT OF MINES.—The Bill has been read a second time, and is now before a select committee. It will eventually be brought before a committee of the whole House, and then discussed and settled. There can be no doubt, unless modified to a great extent, that it will be most injurious to the mining interest of Cornwall, already suffering as it is from the low price of metals, and the poverty, generally speaking, of its mines. We believe there would be no objection to assessing the *royalty* of a mine (that is the *rent paid*) to the Poor Law; but how is the value of a mine working at a loss of thousands a year to be assessed? To assess produce indiscriminately would be most arbitrary and unjust, for a mine may return produce to the extent of 3000*t.* a month, and yet be worked at a great monthly loss. The subject is one which altogether deserves serious consideration, and those best conversant with all its bearings should lose no time in petitioning Parliament against the Bill, so far as it relates to metallic, and, therefore, speculative mines.

A SHAREHOLDER.—It is impossible for us to give an opinion as to the *future* value of Otea shares. We know, indeed, very little of the present position or value of the property.

CRELAKE "A." (Glasgow).—From all we can gather, this mine is likely to turn out a very profitable one, and we may be able next week to enter more into detail. Had the mine from the first been managed on the Cost-book System, and calls made, it would long ago have commanded more attention. We believe everything now is managed properly.

WEST PRINCE OF WALES—*"G. S."* (Bristol).—The fact of cutting the lode rich west of the cross-course at Prince of Wales is highly in favour of West Prince, and all along the backs of the lode the burrows of the ancients can be traced, showing it was a productive lode to the boundary, and a shaft is about to be sunk on it in West Prince. The north lode at the latter mine also turns out to be more promising than at first stated. When we recommended Prince of Wales shares at 10*s.* many people would not then buy, who afterwards gave 50*s.*; and when West Prince get up to 20*s.* we suppose those who will not look at them now will rush in as buyers. The success of Prince of Wales adds enormously to the value of West Prince, and there is no prospect of a call for twelve months at least.

"C." (Plymouth).—Sell 1, 3, and 6, if not at too great a sacrifice. Hold on the others, which will pay good dividends for years to come.

"X. Y. Z." (Dublin).—In former years dividend mine shares were bought to pay 20 per cent., or five years' purchase; but the market then was extremely limited. At present you can only buy established dividend mines to pay about 10 per cent. West Chelverton pays rather more, Devon Consols rather less, but both will increase ere long. South Cadron is a good dividend mine, and well managed. To get 20 per cent. in dividends is only possible by buying into mines just coming into good dividends, like the Prince of Wales. If this mine, which will at once commence to pay 2*s.* 6*d.* per share quarterly, should continue at that rate, it will be nearly 20 per cent. on the present market price of shares; but we have no doubt whatever, in our own minds, that the dividends will soon be 5*s.* per share quarterly, which would be 20 per cent. on 5*s.* per share. This time last year, (we might say on the Derby day of 1866), Prince of Wales shares were 5*s.* to 6*s.*—this year 5*s.*

NEW EAST RUSSELL.—We have frequently explained that one of the finest gossan lodes ever seen was cut here some years ago, and that an adit was commenced to get under it nearly 90 fathoms deep, where, if cut rich, a good mine would be opened out at once. By this week's report we find in this, the deep adit, the lode being carried is 2 feet wide, yielding good stones of black and yellow copper ore, and also good stones of malleable copper; and an improvement expected, as the end is getting near the dip of the large gossan lode seen at surface. A sale of ore this week realised 240*t.*

HOISTS FOR IRON FURNACES.—At the last meeting of the Franklin Institute, attention having been directed by the Secretary in his report to the hydraulic hoists lately erected at the Rosedale Ironworks, Mr. Coleman Sellers described a similar instrument, which had been for many years in use at the establishment of Messrs. Whitney and Sons, where it was used for moving the cart-wheels into and out of the annealing ovens or pits. The peculiarity of this machine is that a system of pulleys is separated by the action of a hydraulic ram, thus securing, by an inverse action of the pulley, a rapid motion in the hoist from a slow one in the ram. The President, Mr. J. V. Merrick, then stated that in many of our iron works an *ir-boat* was used with good results. This plan was first introduced by Mr. John F. Miz, at the Bethlehem Ironworks, at which two of these machines were now in use, one with a single column, the other with two. The arrangement is as follows:—A long cylinder is provided, having the same height as the hoist. This is closed, and has a stuffing-box at the top, through which passes a wire-rope, which is attached to a piston within, and passing over a pulley, is fastened at its other end to the platform of the hoist. Air from the furnace blast is supplied to the cylinder at about 5*lb.*, and raises the car with its load, the weight of the piston counterbalancing that of the platform. Similar hoists to the above are used at the Lehigh Crane Iron Works, Catasauqua, and at the Thomas Ironworks, Hokendough, Pennsylvania. The President further described the plan now largely used in pavement hoists, or those employed to raise goods from stores below the ground to the level of the pavement. In this case the platform was simply supported on the head of a ram, which was raised by the hydrostatic pressure due to the head of water obtained from the mains or from an elevated cistern. Prof. E. E. Rogers also stated that he had inspected a hoist of this description in the Charing-cross Hotel, London, with a lift of 20*ft.* We hear that one of these hydraulic hoists is to be erected in this city, with a lift of 80*ft.*—*Journal of the Franklin Institute.*

MONT CENIS TUNNEL.—This great work is now more than half completed. The entire length of the tunnel will be 7 miles 125 yards, and the distance completed at the close of March, 1867, was 4 miles 345 yards. The adit distance in March was 148 yards, and if the present rate of progress could be maintained, the tunnel would be completed by March, 1870.

RAILWAY SPEED.—A comparison of a large number of examples has enabled the Railways Commission to make the following statement:—In England the express train generally, including stoppages, about 40 miles per hour; the average of all the examples of the quickest trains (omitting suburban) gives 26*1/2* miles per hour; the ordinary trains run generally from 18 to 30 miles per hour; the average of all the examples of the slowest trains gives 19*1/2* miles per hour. In France the express train runs, including stoppages, 25 miles per hour; the average of the quickest examples is 31 miles; the ordinary trains run from 16 to 25 miles per hour; the average of all the examples of the slowest trains is 18 miles per hour. In Belgium the quickest trains run from 29 to 35 miles per hour; the slowest is 18 to 23. In Prussia the quickest 29 miles; the slowest 17 to 21 miles. In Austria the quickest 24 to 32 miles; the slowest 21 to 24 miles. In Bavaria and along the Rhine the quickest 24 to 32 miles; the slowest 19 to 24 miles. In Italy the quickest 24 to 30 miles; the slowest 15 to 24 miles.

The largest Topaz known has been deposited at the Bank of France. It is of Brazilian origin, and measures 7*1/2* in. in length by 4*1/2* in. in width, and about the same in thickness. It weighs 1*1/2* tons. However valuable this stone may be from its brilliancy and size, it is still more so from its artistic merit: on one face is engraved a half-length *Christ* in *gold* and *diamond* dust by the owner. This composition was executed with the *gold* and *diamond* dust by the owner of the gem, André Cariello, formerly director of the Naples Mint.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending May 19 was 11,506*s.* 2*s.* 1*d.*

NOTICES TO CORRESPONDENTS.

* * * Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt: it then forms an accumulating useful work of reference.

THE MINES OF THE RIO TINTO.—Enquiries having been frequently made for the pamphlet "Notes on the Mines of the Rio Tinto," by Mr. J. Lee Thomas, in consequence of its containing an account of the process by which the poor ores of copper are successfully treated by calcination, lixiviation, cementation, and precipitation, we are glad to state that copies can now be obtained from the *Mining Journal* office by forwarding 20 stamps. Mr. Thomas estimates that by the establishment of railway communication between the Rio Tinto mines and the port of Huelva 161,917*t.* per annum could be realised, and, if this be so, it is difficult to understand why the treatment of the poor ores of Cornwall and Devon should not be turned to far better account than at present. Of course, it cannot be supposed that all the poor ores of copper could be treated by a single process, but that there are large quantities now thrown aside as worthless which could be profitably worked appears to be beyond question.

The postal address of Mr. G. W. Southern, Her Majesty's Government Inspector of Mines for Yorkshire, is "near Pontefract."

WEST ROSEDOWN.—If a shareholder will write me, I shall be happy to afford him any information in my power respecting this mine, but should anything important occur, he will be at once informed of it.—J. TRUSCOTT.

MINERAL RIGHTS.—I have received a letter from Mr. John Batters, finding fault with the directors for buying shares in gold mines. Now was not the company formed primarily for investing in gold mining properties? I find by the prospectus that there is power to invest in established companies holding out prospects of early success. If the directors have done this, by buying at a discount, or even at par, I think they have acted most wisely and judiciously. It is much safer and cheaper, and results will be much earlier than taking up new concerns.—A SHAREHOLDER.

DYFNGWN MINES.—In the report of Capt. J. Davis, in last week's Journal, in stead of "the bearing of the lode is 10° north-east and 70° south-west," read "the bearing of the lode is 10° north-east from the western boundary to the engine-shaft, and 70° south-east from the engine-shaft to the eastern boundary."

THE MINING JOURNAL.—May be had every Sunday morning of M. L. Nicoud Bellenger, rue Rivoli, 212, Paris. Price 65 centimes. Mr. Nicoud Bellenger also supplies all English and American books and newspapers to order.

THE MINING JOURNAL,
Railway and Commercial Gazette.

LONDON, MAY 25, 1867.

STRIKES IN THE COAL TRADE.

As Derbyshire promises to be once more the theatre of one of those struggles between capital and labour which have done so much to drive trade into the hands of the foreigner, it may not be out of place to notice the present position of the mining population of that district. It is only a few months since the South Yorkshire Miners' Association, emboldened by success at home, determined to extend their principles into other districts, and so create a power against which the coalowners, bound together by no ties of association, would have to succumb in detail. Derbyshire was the chosen *local* for the first essay, success in which was to be followed by a similar attack in Lancashire. In Derbyshire, however, an unexpected and singular combination arose, and one which had not been taken into consideration by the Miners' Union. The history itself is one of the most interesting connected with combinations of workmen, whilst the results were in every way surprising. The movement first commenced with a demonstration at Chesterfield, for the purpose of forming a Miners' Union for Derbyshire and Notts. A considerable number of the miners joined together and formed an association, on which Mr. MARKHAM and Mr. BINNS, on the part of the Staveley and Clay Cross Companies, made known their determination not to employ any person connected with the Union. Both firms had long been noted for their great liberality towards their workpeople, some idea of which may be gathered from the fact that on taking to the works from the late Mr. BARROW, the Staveley Company paid that gentleman, on behalf of the schools, no less than 5310*t.*, and expended upwards of 12,000*t.* more for similar objects. The Clay Cross Company have also spent large sums in establishing schools, an hospital, &c. The Staveley Works give employment to a vast number of persons, and have a population of some 15,000 dependent on them, and for their accommodation have between 800 and 900 houses. The other company is also one of the largest in the kingdom.

To return to the history of the dispute, we may state that the South Yorkshire Association having seduced the Derbyshire miners from

their allegiance to their employers, a struggle of no ordinary character took place, and which, after the lapse of a couple of months, led to a combination of workmen in opposition to the Union. From

a very few in number they gradually increased by the desertion from the Association ranks, until in less than a month upwards of 1100 men in Staveley alone enrolled their names in favour of individual

freedom, and the right to dispose of their labour wherever they pleased.

By the end of January the numbers had increased to 2200; and ere March had terminated the Unionists gave up the contest, thoroughly beaten by those on whom they most relied.

But what has been the result of the contest thus terminated? At

Staveley and Clay Cross the managers, on finding themselves deserted by their men, were obliged to give up contracts where practicable, and to lose some of their very best customers, from inability to supply them. The trade, consequently, went into other districts, where

there were no disputes, and there it remains. The men now begin to

realise, to the full extent, the evils inseparable from combinations, having for their object the raising of wages and the limiting of the

hours of labour, which too often means the decreasing of the capital

on which wages must depend. Short time is now, and is likely to be,

the rule for some time to come, so that the endeavours made to limit

the working hours of the colliers in North Derbyshire has ended in

enforced limitation of the working days, as, from the causes alluded

to, three and four days a week are now all that can be obtained in the

collieries. The lesson thus taught is one which will not be lost

sight of or soon forgotten, and shows what can be accomplished by

a determination on the part of employers not to be dictated to, and

by a stoppage of the supplies, in the shape of wages, which they too

often find to fight themselves. On the other hand, the men will see

that it is to their interest to have their labour free and untrammelled,

and so be enabled to make the best bargain they can in its disposal,

recollecting that they stand with regard to employers as the sellers

of a marketable commodity, which, like any other, will always find

its price according to the immutable law of supply and demand.

IMPROVED ROCK-BORING MACHINE.

A most successful trial has just been made at Messrs. Turner's Grey Friar's Works, Ipswich, with the improved rock-boring machine, invented by Mr. GEORGE LOW, and to which reference has several times been made in the *Mining Journal*. It is manufactured for the Tarranger Tunnelling and Gold Mining Company of Victoria, Australia, and the engineer of that company states that he has seen no machine in which the difficulties had been so triumphantly overcome as in this. The whole of the apparatus used in the operation is a complicated mass of machinery, but nothing can be simpler than the method of dealing with the rock when once the drill is brought into contact with it. The drill itself is a bar of the finest steel, dubbed up at the end next the rock till it is 2 inches in diameter. The face of the drill is marked by two ridges, intersecting each other at right angles. The ridges are brought to an edge at a somewhat obtuse angle, but the form of the drill will be best understood, without the aid of a diagram, by saying that if impressed upon any soft material it would leave the impression of a cross, the arms of which were of equal length, intersecting each other at right angles. This drill is not turned round upon the face of the rock, but strikes against it at the rate of 300 or 400 blows a minute, and with enormous force. The drill is kept turning, as these blows are struck, by the men in charge of the machine, so as to allow the cross-faced drill to fall upon a fresh surface as frequently as possible. The drilling portion of the machine is borne upon an iron frame, and runs upon wheels, and upon rails at about 2 feet gauge. This part is moved backwards and forwards by a small steam-engine, which is encased within the iron column which supports the drill; but the engine is not worked by

steam, which would heat the air of a mine, but by compressed air working at a pressure of 90 lbs. on the square inch, and which, as it passes from the machine, serves to ventilate the mine. This engine also turns the drill-arm about in various directions, so that the can be presented to the top, the bottom, or each side of a gallery directed immediately in front, and all this with no more adjustment of gear. The drill-arm works backwards and forwards in a kind of socket by the same power as the engine that takes it up to its weight—compressed air. This air is applied directly to a piston, upon which the drill is fixed, by a clever contrivance of valves, and these valves are supplied with the air from a separate piece of hose, and these valves are the wonderful facility with which the drill may be turned in any direction, for there is no apparatus to uncouple and readjust, and the moment the point of the drill is turned in the right direction, the air may be turned on and the drill set to work.

Another great advantage arising from this method of working due to the fact that there is always a cushion of air behind the drill, and this deadens the concussion, and leaves the borer remarkably steady. Indeed, so little vibration is there that a glass filled to the brim with water would not have spilled if it had been placed upon any part of the borer. The rest of the apparatus consists of various contrivances for compressing the air and conducting it to the machine. The air is carried down the shaft of the mine from the receiver, into which it is compressed by means of an India-rubber tube; and, before quitting what may be called the boring-machine proper, we must state that the inventor has taxed his skill and insight to provide even for the safety of the tube, for it is coiled upon a drum attached to the machine, and worked by the same engine, that as the machine advances into the mine, the drum revolves and lays out exactly enough tubing, and as the machine revolves, the drum revolves the other way, carefully picks up the tubing, coils it out of the way of the wheel and of the pieces of the machine, which may fly about in the blasting. Of course, the rock borer machine may be any distance from the

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ture of tin-plates by Parsons's patent must be considerable, and the simplicity of the machinery is such that, while its cost will be no drawback to its adoption, it can safely be entrusted to the management of boys, as the cold rolls are at present. The "black-pickle" process will be entirely done away with, together with its concomitant expenses and dangers; there will be fewer "wasters" than at present, while with one annealing and one cold-rolling, plates of superior quality can be procured than are now manufactured with two. From the prospectus, we find that Mr. J. C. Manning, Brunswick-street, Swansea, is the agent for the sale of the machines, and for the production of the patent, of whom, as well as of the patentee and inventor, Mr. T. F. Parsons, of Maindee, near Newport, Monmouthshire, all particulars may be obtained.

RAILS FOR AMERICAN LINES.—A gentleman of considerable distinction in the United States, and connected alike with the iron trade there and with a leading railway line, has just arrived in this country, having as one of his leading objects the purchase of rails of the first quality for the entire relaying of one of the lines of which he is a director. This line, the capital for which has been found to a great extent in England, is now paying a very excellent dividend. Contrary to the views which were entertained by some persons as to the methods which are adopted in the States to secure profitable returns upon railway undertakings, in respect of the class of line most to be desired, this gentleman is convinced that, if the present dividend is to be kept up, rails of the very best class must supply the place those that are now wearing out. To purchase and lay down iron, such as has been sent from Great Britain to the States, in many instances, would be, in the most efficient course of gradually bringing down the profits of the line to a point which would produce a markedly unsatisfactory effect upon the value of the shares in the market. There is nothing new in this; but it is important, as coming from a man who has the double knowledge, arising from his position as ironmaster and as railway director. Nor is he a man who has only a smattering of information upon the duties of these two positions. He is thoroughly well up in every process that has yet been adopted in this or any other country for the production of serviceable and long-enduring rails, whether of metals produced of cold-blast iron or steel iron, or metals possessing steel faces, put on by grooving, or by any other of the many methods adopted for the use of either Bessemer or crucible steel. And he can tell an English rail-worker what effect would follow certain admixtures in the production of the rails, and certain methods of rolling, before the maker himself could explain the results of his experiments. As an ironmaster, he has been as alert, in his branch of his calling, as any British manufacturer, and any maker in this country will be fortunate if he should succeed in obtaining an interview with him, for he is only possessed of information resulting from his own experience in the trade and his knowledge of what has been done by other ironmasters in the States, and he is also willing to impart his information in those cases in which he sees a real interest taken in the production of a first-class article. Before he leaves Europe, he will, if he can carry out his present plans, have visited all the iron-producing districts of Great Britain. Having seen what is being done in the leading works in those districts, he will then make his purchases. This latter is not merely of interest as showing the opinions which are held upon the subject mentioned by the best railway men in America, but it possesses much significance to the British ironmaster. Here we have an American ironmaster, of equal standing in his own country to that of almost any ironmaster in Great Britain—one, moreover, who has paid every attention to the production of rails, and none that we are making in this country can exceed—who is likewise a railway director, yet is driven to Great Britain to purchase rails for his own country. Why is this? Almost solely because that is now being attempted by the artisans of the United States which has recently been so prominent, and indeed, still is, in the conduct of the same class of men in this country, and which has deprived them of much remunerative industry. The American ironworkers, pretty well known, have for some five months past been waging a severe war with their masters to secure a great rise in their wages. The masters, after having resisted the demands of an impracticable, are now yielding, to an experimental extent, the last information being that a portion only of the Pittsburgh mills have been recommissioned on the men's terms. This result has taken place since the gentleman of whom we write has left the States, but it was inevitable before he started. Persuaded of this, he at once saw that American lines could not be supplied on the terms which they could be got at from Great Britain, and at once came across to secure a supply from this country. How long this prevalence is likely to last remains to be seen, but it now exists, and the fact of its existence, with the circumstances attending to it, to which we call attention, are of considerable importance to all persons engaged in the management of railways and ironworks throughout this country.

FOREIGN MINING AND METALLURGY.

The report just presented to the shareholders in the Commentry and Montivic Collieries and Fourchambault Forges and Blast Furnaces Company states that in 1866 the total extraction of the company's mines amounted to 5,516,609 hectolitres, or 271,756 hectolitres more than in 1865. The report, however, announces the fortunate discovery, after ten years' efforts, of a bed of coal 13 ft. thick, at a depth of 600 ft. The directors express a hope that the shareholders will learn with satisfaction that, acting in concert with the Châtillon and Commentry Company, they have purchased the Creuzot iron mines in the Cher. They have, besides, arrangements with the Châtillon and Commentry Company for the working of the iron mines in the seven departments of the Centre, which directly interest the two companies. The production of coke-made pig at the works of the company—that is, the Commentry and Fourchambault Company—amounted last year to 50,527 tons, or 5432 tons less than in 1865; the production of charcoal-made pig last year was 3766 tons, or 697 tons less than in 1865. The casting establishments present also a diminution in the production in the past year, that production only amounting to 19,761 tons, or 8089 tons less than in 1865. The whole metallurgical production of the company last year amounted to 59,886 tons, as compared with 65,613 tons in the preceding exercise, showing a diminution of 5727 tons. Various improvements introduced into the company's Montivic works enabled a saving to be effected last year of 4s. per ton of pig produced. Of the capital immobilised by the company (1,059,538L), 12,106L was redeemed last year. The total reserves made amounted to 760L at the close of 1866. The profits of the past year, after providing for the interest and redemption of obligations, amounted to 88,271L, from which 8827L, 10 per cent., was deducted and carried to the reserve account. The balance, 79,451L, enabled a dividend to be declared at the rate of 1s. 6d. per share. M. Albert Bouguès has been appointed a member of the Council of Surveillance in succession to Baron Leconte, resigned. The report presented to the shareholders in the Grand' Combe Coal Mine Company, for the past year, states that the results attained in 1866 were less satisfactory than those of 1865. Thus the production of 1866 amounted to 495,000 tons, or 16,700 tons less than in the preceding exercise. This decrease must be regarded as considerable, since it brought production of 1866 almost to a level with that of 1863, while in the first quarter of this year the extraction has further fallen to 115,000 tons. The administration attributes this state of things to a development in the production which is not bear a due proportion to the progress of the consumption—a somewhat startling statement, seeing that very different reports are made from the North and Centre of France. The Grand' Combe directors, acting in concert with other mining companies, have been considering the best means of improving the present situation, and with this object a syndicate has been formed among the men in common of the coal of the South-East of France in the ports of the Mediterranean in competition with English coal. A sum of 12,438L was expended last year for the development of arrangements for a supply of pure coke for the use of the company's engines and for the domestic wants of the workpeople employed. The directors state that they have watched with interest various attempts made to provide a remedy for the continually increasing scarcity of labour by some mechanical means. The rough profit realised in 1866 amounted to 82,538L, from which must be deducted 12,592L for loan charges, leaving a net profit of 69,946L, of which 3497L was carried to the statutory reserve, leaving a balance of 66,449L available for dividend. The corresponding balance for 1865 was 68,764L, showing a decrease of 2312L in last year's available balance. The dividend to be paid for 1866 is, however, the same as that distributed for 1865—2L 12s. per share, of which 1L 6s. per share will be paid June 15, and the balance Dec. 15. The report presented to the shareholders in the Caraux Mines Company indicates a sensibly more favourable result for last year than in 1865. In effect, the production of coal for the exercise 1866 amounted to 1,300 tons, or 8600 tons more than in 1865, although, as the report remarked, the operations of the past year were somewhat restricted by a want of labour. The directors added that the same cause will probably keep the production at 1300 tons for the current year, and it is only when all the preparatory works are completed that the progress of the extraction will become regular. The sale in 1866 were 125,000 tons, or 7700 tons more than in the preceding year; similarly the sales of coke, which amounted last year to 18,700 tons, exceeded 22,000 tons those of 1865. The balance of dividend declared will absorb 10,208L. The Belgian coal trade has experienced no sensible change since last alluded to it; the fall which has occurred in prices appears to be stopped, but no revival can yet be noted in transactions. The country workpeople and the brickmakers employed during the busy season in collieries begin to desert them, so that the extraction is being diminished in almost all the basins. This diminution of the production is regarded favourably by extractors, as it has the effect of reducing the too considerable development of stocks, which exerts an important influence on prices. Some sales in coke have been concluded in the Liège basin; the other coal basins are extremely quiet, and prices remain the same. No important movement has occurred in the Belgian siderurgical market, which remains as it was; at the same time, the recently-acquired certainty of the maintenance of peace in Europe has revived the hopes of industrialists, who anticipate a greatly increased activity in consequence. The stock of pig is considerable, and, notwithstanding the numerous extinctions of blast-furnaces, it appears to be still increasing. The rolling-mills producing plates have regained some activity, more particularly in the Liège group, and the workshops producing railway plant (some of which are almost at a standstill) have received some orders which have, to a certain extent, revived their activity. It is considered next to impossible that the industrial crisis through which Belgian metallurgy has been passing should be further prolonged, and that forgemasters may now fairly calculate on a revival of business.

Chilian copper has regained a certain amount of favour on the market; several lots of disposable Chilian in bars have found purchasers at 74L per ton. At Paris the tone of the article has been better; Chilian in bars is quoted firmly at 74L per ton, while other qualities have supported previous rates. The favourable advices from England have been accepted with confidence on all the German markets, and the bulletins of the past week without indicating any very great activity, nevertheless show a further tendency. At Cologne prices are firm, without change. Less business has been done in tin on the Dutch markets. Advices from Rotterdam and Amsterdam show, in fact, that transactions are very much reduced, and that in

consequence of the falling off in the demand Banca, which had been dealt in at 53s. 6d., has receded to 52s. 6d., at which rates there are now sellers; the import-export fluctuation which this metal has experienced since the last public sale are attributable to speculation. Billiton remains quoted on the Dutch markets at 52s. 6d. The Paris tin market remains quiet; there, however, a little improvement in Banca and Detroit, which are quoted respectively at 52L and 90L per ton. English tin remains without variation, at 88L per ton. Tin has displayed a better tendency on the German markets, and quotations have generally revived. At Hamburg, English tin in blocks and in bars remains quiet, at preceding rates; on the other hand, Banca has been a trifle firmer. The last few days have involved no important change in the position of lead. On the German markets former rates have been fully sustained, and the demand has been generally satisfactory. On the other hand, the Paris and Marseilles lead markets display a downward tendency. At Paris zinc has remained neglected, and is quoted at a decline; rough Silesian has made 22L 4s., and zinc from other sources 21L 16s. per ton. The Breslau and Hamburg zinc markets have been also somewhat dull.

The tone of the French siderurgical market is somewhat more satisfactory. There is little improvement as regards the immediate present, but with the assurance of peace a greater confidence has returned to affairs. At St. Dizier pig is without business, at least for local marks. A rolling-mill in the Haute-Marne is reported to have purchased a lot of charcoal-made pig in the Ardennes, although the transport expenses will amount to 10s. or 11s. per ton. The forges in the Haute-Marne group have received only small orders; nevertheless, there appears to be great firmness in prices. The ironmasters in the district of the Marne-et-Meuse have decided on extinguishing four blast-furnaces. In the Moselle no new contracts for pig are spoken of, and prices are to a great extent nominal. The iron trade cannot be said to have improved in the Moselle group. The Paris, Lyons, and Mediterranean Railway Company is aiming at the replacement of its old steel rails with new ones of Bessemer steel. In the French coal basins of the Nord and the Pas-de-Calais, the state of affairs is relatively good, having regard to the general fall in coal. Stocks are considerable at all the workings, but prices are supported with great firmness. The coal-workers appear to be placing a good deal of reliance on the new line from Amiens to Rouen for the development of their trade. The dividend of the Sambre and Meuse Ironworks Company for the exercise 1866 is 9s. 6d. per share; this dividend will, however, be paid in obligations of the company, bearing interest at 6 per cent. The dividend of the Maubenge Blast Furnaces Company for the exercise 1866 is 1L per share. The balance of the dividend of the Naval and Railway Blast Furnaces, Forges, and Steel Works Company, for the exercise 1865-6 is 1L 8s. per share, payable May 31. Meetings are announced as follows:—Bank of Mines, May 27, at Paris; Gar. Rouban, and Hariz Mines Company, May 29, at Marseilles; Graissesse United Mines Company, May 31, at Montpellier; Caroline Mines Company, May 31, at Essen; Conde-Mine Coal Mines and Bituminous Schist Company, June 3, at Paris; Campagnac Mine Company, June 4, at Paris; Vienne Metallurgical Company, June 5, at Paris; Pailleur Mines and Ironworks Company, June 8, at Marseilles; Cruyvino Mines (Italy) Company, June 10, at Paris; Holzappel Silver, Lead, and Zinc Mines (Prussia) Company, June 15, at Paris, &c.

THE PARIS EXHIBITION—NO. IV.

[FROM OUR OWN CORRESPONDENT.]

The display made by the United States of America, although by no means large, is not less interesting than that of any other country. The beautiful locomotive in the machinery annex is, of course, admired by all who see it; and the street car behind it is, beyond question, much in advance of any public conveyance in use in Europe; and the collection generally would, no doubt, attract much more attention, especially from the French visitors, but for the persistent individual and senseless boasting of the American exhibitors. Thus, upon a party of Parisian ladies and gentlemen expressing their admiration of the locomotive already alluded to, a showily-dressed American woman loudly observed, in American-French—a dialect which, it is true, is but just intelligible to those accustomed to polite society in Paris—"What wretched machinery these poor French people must be used to, if they admire such a thing as that. Why! we use such engines in America to draw dirt. I wonder what they would have thought if we had sent over an engine used for passenger cars." Fortunately, a Frenchman is never at a loss for an answer, and never fails to be polite. "Madam," said one of the party, "do not feel grieved that it is merely an inferior engine that we admire. We admire its external beauty, not its utility—of that we know nothing, not having seen it work; we look upon it merely as upon a picture, and could do no more were it a passenger engine. We Europeans are certainly not such mechanics as you Americans, because we spend part of our time in the study of truth." The American lady hurried off to examine the sewing-machines, without even saying whether the apology for the ignorance had satisfied her. Scarcely less highly finished than the locomotive is a HICKS's engine, in the main building, exhibited by the HICKS Engine Company of New York. In this exhibit we have the advantage of seeing that there is something more than outside show in the engine, since it works most smoothly, and has the advantage of being attended by a gentleman who is most courteous in giving every detail as to the improvements in, and excellent results obtained with, the engine. The centrifugal-pumps and oscillating engine of MESSRS. ANDREWS BROTHERS, of New York; the engines of the Corliss Steam-Engine Company of Providence, Rhode Island; the steam-pumps of MESSRS. HARRISSEN, of San Francisco, and DWIGHT and CO., of Springfield, Massachusetts; and the rotary engine of MESSRS. DART and CO., of New York, are each worthy of inspection; and in the grounds, nearly opposite the coal trophies of Nova Scotia, &c., is a ROPER's hot-air engine, exhibited by MESSRS. CROSBY, BUTTERFIELD, and HAVEN, of Dey-street, New York, of which a detailed description will be given in a future journal.

But if the show of machinery from America be less extensive than might reasonably have been expected, no complaint can be raised as to the collections of minerals. Upon entering the building by the Rue d'Afrique, the visitor will find on the left hand, beyond the machinery, a court devoted to the display of minerals chiefly from the Pacific States, which for arrangement, character, and variety, could scarcely be surpassed. The territory of Colorado is well represented, and there are some minerals from Idaho, which appear in the catalogue as the exhibit of Mr. WALDRIDGE, of New York. The States of Illinois, Iowa, and California, have each their show of minerals. From the territory of Nevada, copper, coal, and marble are sent; and Prof. J. P. WHITNEY has some fine silver ores and minerals from Colorado. There are rocks, minerals, building stones and marbles, from Indiana; and minerals from the territory of Minnesota, and the States of Alabama, Michigan, Wisconsin, Kansas, Arkansas, Missouri, Texas, &c. The Chester Iron Company exhibit specimens of emery and minerals from Massachusetts; the New Jersey Zinc Company show specimens of their ores, and of the products manufactured therefrom; Mr. BURT, of Detroit, Michigan, has sent iron ores, various specimens of iron and steel, and samples of iron made from the specular and magnetic ores of Lake Superior. The Texas Chrome Mining Company send chromic ore, and from other exhibitors there are excellent specimens of cast-steel, edge tools, malleable iron castings, ingot and sheet copper, files, nails, white lead, and hardware, so that in connection with their mining and metallurgical industries the Americans have good reason to be proud of the display. The coal specimens are admirable, and samples of prepared peat fuel are exhibited by Mr. ELSBERG, of New York, and by MESSRS. LEAVIT and HUNNEWELL, of Boston, Massachusetts. With respect to the mineral riches of the Pacific States, it should be stated that, with a view to encourage mining industry in those parts, an influential society has been organised in New York, under the title of the American Bureau of Mines—it is directed exclusively by merchants and gentlemen of position in New York, who have secured the aid of a council of experts, embracing members of the scientific community of America of acknowledged ability, and in many cases of universal reputation. The character and objects of the society will be more fully stated in a future notice.

THE BANCA TIN ISLANDS—THE COAL OF THE DUTCH EAST INDIES.—Another interesting, though far less extensive mineral collection than that of the United States, is that in the Netherlands Court, on the right of the Rue des Pays Bas, illustrating the mineral resources of the Dutch East Indies. There are some excellent specimens of red and black argillaceous schist, porphyroid granite, gres ferruginous, grauwacke, granite, quartz, &c., and tin ores from the districts of Jeboes, Blinjoe, Muntok, Soengeliat, Pangkalpinang, Soengeliat, and Toboali, all in the island of Bangka or Banca, and tin ores (Wolframite), magnetic ironstone, gossan, hornstein, &c., from the island of Blitong, or Billiton, in the Riouw Lingga archipelago. There is granite, clayey mica-schist, and alluvium tin ores from the island of Sungkep; argillaceous schist from the island of Lingga, and various minerals from the islands of Gallang, Buitang, Soegi, Roendoer, and Rarimon. Gres marnes, diorite, schistose clay, and alluvium tin ore are also shown from the territory of Siak, the whole forming not only a fine collection, but also showing in an extraordinary degree the ample resources for tin of the Dutch East Indies. The collection is sent by the Government officers of mines, and with the sanction of the Government of the Dutch East Indies.

The coal specimens sent by the same body are likewise particularly well worthy of attention. The interest is much enhanced by the accompanying rocks being also exhibited. The specimens are from five different places—from Pelerang, in the territory of Roeti, on the eastern side of Borneo, where there are seven seams of good glance coal of the thickness of 1.35 metre, 1.40 metre, 1.30 metre, not stated, 0.80 metre, 2.00 metre, and 2.30 metres, respectively. From Orange Nassau or Pengaron there are specimens shown from six glance coal seams of the several thicknesses of 1.60, not stated, 2.40, 1.20, 0.55, and 1.30 metres, respectively. The coal from the private concession of Banjoeirang, belonging to JULIE HERMINE, but not worked since 1859, and embracing four seams of 0.75, 0.50, 1.05, and not stated, respectively, are also shown. In various parts of Tanah-laut coal is also found; glance coal, for instance, between the village of Balah and the river Kiamkiwa, and between the village of Kembangkoeing and the rivers Mankam and Kiamkiwa. At Assem there are three beds of compact lignite of promising appearance, besides two of upper seams of small value; their thickness are 1.5, 3.0, and 10.0 metres respectively. From the concession of Mr. BUY's glance coal is also shown; it is obtained from Cape Kamoening, the north-east point of the island of Lant, and from Cape Parmantingan, the north-west point of the same island. At the latter place there is a second bed, from which specimens are also shown, and further there is a specimen from Nangka, Tannah Coemboe. Lignite, slate coal, and glance coal are also shown from the "Residence," on the eastern side of Borneo, and there is a sample of the grob coal, obtained from the English concession on the island of Labuan. The whole of the coal already referred to, although, no doubt, valuable where no better are obtainable, are not such as we should be accustomed to attach much importance to in this country; but from the "Residence" of Palembang, on the eastern side of Sumatra, there are some true brown coals and slate coals; and from the "Residences" of Benkoelen and Upper Pedang (Pedan-sche bovenlanden), there is some excellent glance coal, one of which, however, that from the northern outercrop of the bed, contains some pyrites. Both these latter "Residences" are on the western side of Sumatra. The manufactured tin produced in the Dutch East Indies, is so generally known in Europe, that the exhibition of it at Paris would, of course, have been superfluous, but by sending representatives of the tin ores and of the coal, the Dutch officers of mines in the East have afforded ample evidence that there is a large field for the extension of mining industry, and that they are sparing no efforts to ensure the value of the minerals being fully appreciated.

PLUMBAGO CRUCIBLES.—Close against the exterior wall, and immediately upon entering the English Machinery Department from the grand entrance are several stands of plumbago crucibles, the principal being those of Mr. J. HYNAM, of Deptford, and of the PLUMBAGO CRUCIBLE COMPANY, of Battersea. The crucibles manufactured by the latter firm have been for some years past in very general use in British and foreign mints and arsenals, and have been largely employed by engineers, founders, and refiners. They have proved themselves to be of sound uniform quality, to withstand the greatest heat without danger, to be free from liability to crack, and to heat with great rapidity; one annealing only is required, and change of temperature has no effect upon them. It is claimed that as these crucibles last much longer than any others the saving of metal must be great, because to each worn crucible a quantity of metal adheres. With regard to the crucibles of Mr. J. HYNAM, who is now the recognised manufacturer of plumbago crucibles to the Royal Arsenal and Dockyard, Woolwich, he has, during the past two years, secured a large amount of patronage, and claims that his are decidedly superior to all other plumbago pots. They are capable of melting from 50 to 60 pourings of the hardest metal, and a far greater number of others of ordinary character, some having reached as many as 90 pourings. The plumbago crucibles require only once annealing, and may then be used any number of times without further trouble, and become heated more readily than any other description, the change of temperature having no effect on them; they may be taken from the furnace at a white heat, and plunged into cold water, and then placed in the hot furnace again, without the least injury. There is also much less absorption of metal, and only about two-thirds the usual quantity of fuel is required to melt the metal. In comparison with clay crucibles they are infinitely cheaper, although about five times their cost. A good clay crucible will last only one day—the plumbago crucible from six to eight days; and, as these pots only require annealing once, there is a great daily saving of time and fuel, more than equal to the first cost of the plumbago crucible.

AUTOMATIC BOILER-FEED APPARATUS.—Immediately upon entering the machinery department of the American Court is an admirable invention, by Mr. G. A. RIEDEL, for securing a supply of water to the boiler, precisely as that contained is evaporated, and working perfectly independent of the engine or engineer. The machine will supply a boiler without the aid of a pump or injector, and will keep the water at a given point, from which it cannot possibly vary, thereby economising fuel, and preventing the possibility of explosion by low water, and the great inconvenience of carrying water too high in the boiler; and will also give the correct amount of water which has been used from time to time, by placing a counter to it. It has an oscillating motion, imparted by the difference in weight of steam and water, whereby the valves communicating with the boiler through the steam-pipe and feed-pipe and the valve communicating with the supply water are alternately shut and opened by the mechanical arrangement of a differential lever, fulcrum, and counter-weight. When the water by evaporation falls below the water line steam will flow through a pipe into the receiver, thereby making it virtually a portion of the boiler, and the pressure being equalised the water will find its level by gravitation, and steam take its place in the receiver, which, being lighter than water, the counter-weight will close the two valves and open the valve in the supply-pipe for the purpose of condensing the steam and forming a vacuum in and re-filling the receiver, when it will again resume the position first described.

REPORT FROM SCOTLAND.

MAY 22.—The Pig-Iron market was a little irregular at the close of last week, and prices rather weakened; but since then we have experienced greater stiffness, and an advance has been gained. On Monday a large business was done at the higher rates, and on Tuesday these were again augmented. To-day the market was still strong at the advance, 53s. 7d. to 53s. 10d. having been paid, cash, and 54s. one month; g.m.b., No. 1, 54s. 3d.; No. 3, 53s. 3d.; Gartsherrie, No. 1, 65s.; Coltness, 64s.; Glengarnock (at Ardrossan), 61s. A considerable business has been done on these terms. The shipments are fully 2000 tons in excess of last year, the quantity for the week just closed being 13,347 tons, against 11,205 tons in the same week last year. There have been considerable exports to the Baltic and Northern ports; and with a better feeling and an increasing foreign demand, something like vigour is expected to be imparted to the market. In Manufactured Iron there is a growing supposition that things have reached their worst, and certainly the contracts for iron vessels which have been booked in the Clyde this last week to some extent justifies the hope. Three of the eight new gunboats for the Admiralty are to be built here, and will consume a large quantity of iron in their construction; and three or four other contracts have also been concluded. Several contracts for pipes are also in the market, which will tax the resources of ironfounders in that department.

Coals, if we are to judge from the returned shipments, are in great demand,

THE MINING JOURNAL.

Some out that he was under the age of 12, and had not obtained the certificate required. Upon this, Mr. Verner, the Government Mine Inspector, reported the case to the Home Secretary, who directed the prosecution.

MINES RATING BILL.

To THOMAS S. BOLITHO, Esq., HIGH SHERIFF OF CORNWALL.

WE, the UNDERSIGNED, INHABITANTS of the COUNTY of CORNWALL, REQUEST YOU TO CONVEY A PUBLIC MEETING of the inhabitants of the county, to CONSIDER THE PROVISIONS of the MINES ASSESSMENT BILL, now before Parliament:-

PENZANCE—Continued.

RICHARD V. DAVY, purser of Ballywidden.

WILLIAM BOLITHO, merchant.

EDMUND DAVY, merchant.

HENRY DAVY, merchant.

EDWARD BOLITHO, banker.

T. H. BODILLY and SON, merchants.

RALPH H. BODILLY, merchant.

NICHOLAS B. DOWNING, bank manager.

JOHN THOMAS, Jun., farmer.

M. NOWELL PETERS, vicar, Madron

JOHN ROSCORLA, solicitor.

WILLIAM TRYTHALL, solicitor.

JOHN N. R. MILLLETT, solicitor.

JOHN COULSON, merchant.

BORLASE and MILTON, solicitors.

E. H. RODD, solicitor.

THOMAS CORNISH, solicitor.

H. H. CORNISH, solicitor.

S. YORK and SON, merchants.

JOHN MAXWELL, merchant.

R. M. BRANWELL and SON, bankers.

THOS. JAMES, hotel keeper.

ST. JUST.

S. H. JAMES, purser of Botallack.

R. D. THOMAS.

WILLIAM ANGWIN, mine purser.

JOHN WALLIS.

S. H. JAMES, Jun., mine purser.

JOHN C. BARWIS, bank manager.

JOHN WARREN, printer.

JAMES TREMBATH, Mayon House, Seniors.

RICHARD BOYNS, bank manager.

W.M. TREZISE, Trowellard House, MARAZION.

R. R. MICHELL, tin smelter.

THOS. W. FIELD, mine purser.

R. G. MICHELL, Mayor of Marazion.

R. M. MILLLETT, merchant.

REBIRTH.

JOHN C. LANYON.

FRANCIS PRYOR.

ELIAS DUNSTERVILLE.

JOHN HOCKING and SON.

JOHN KENDALL.

GEORGE A. MICHELL, surgeon and purser of mines.

THOMAS RICHARDS, purser of mines.

JOHN L. PETER, solicitor.

S. T. DOWNING, solicitor.

HENRY GRYLLS, banker.

WILLIAM M. GRYLLS, banker.

FRANCIS PRYOR, purser of mines.

R. H. HOLLOWAY, solicitor and purser of mines.

J. W. HAWKESLEY, rector of Redruth, and owner of dues.

F. SYDNEY DAVEY.

HARVEY and Co., ironfounders and merchants.

W.M. HARVEY, merchant.

W. J. RAWLINGS, merchant.

W.M. WEST, merchant.

FRANK HARVEY, merchant.

SANDYS, VIVIAN, & Company, iron founders and merchants.

JOHN POOL, merchant.

HANL. ELLIS, merchant.

J. H. TREVITHICK and SONS, merchants.

THO. TREWEEKIE, mine purser.

R. H. BAMFORD, solicitor.

WILLIAM HITCHENS, solicitor.

C. C. GRENFELL, banker.

WILLIAM CADE, draper.

G. TREWEEKIE.

HELSTON.

FREDERICK HILL, solicitor.

T. P. TYACKE, solicitor.

FREDERICK V. HILL, solicitor.

T. E. LANYON.

HENRY ROGERS, solicitor.

JOHN BEST.

WILLIAM DALE, solicitor.

JAMES CUNNACK.

HENRY ROBERTS.

JOHN JAMES.

J. G. PLOMER, solicitor.

J. WEARNE, surgeon.

H. W. BORLASE.

ALFRED CREWES.

WILLIAM CHAPPELL.

JAMES CLARKE and Co., merchants.

WILLIAM ROWE and Co., carpenters.

THOMAS ELLIS.

W. B. FORFAR, solicitor.

R. QUINTRALL.

H. N. GRIMLEY.

THOS. H. EDWARDS.

WILLIAM SLEEMAN.

C. D. F. DANIELL.

WILLIAM TREVENEN.

JOHN POOL, Jun.

J. TREDINICK.

R. ROSEWARNE.

JOHN CARTER.

JOHN SIMONS.

JOHN KENDALL.

ST. AUSTELL.

EDMUND CARLYON, solicitor.

ST. COLUMB.

GEORGE B. COLLINS, solicitor.

FALMOUTH.

HARRY TILLY, solicitor.

ROBT. R. BROAD, merchant.

CORNWALL COUNTY MEETING.

MINES ASSESSMENT BILL.

In consequence of the foregoing requisition to me, to convene a GENERAL MEETING of the INHABITANTS of the COUNTY of CORNWALL, to take into consideration the provisions of the MINES ASSESSMENT BILL, now before Parliament, I hereby convene such meeting, to be held at the TOWN HALL, TRURO, on FRIDAY next, the 24th Inst., at One P.M. precisely.

THOS. S. BOLITHO, High Sheriff.

Dated at Penzance, this 20th day of May, 1867.

Just published, in three vols., medium 8vo., with above 2000 woodcuts, price £4 14s. 6d. cloth, or £5 12s. half bound in Russia,

URF'S DICTIONARY OF ARTS, MANUFACTURES, AND MINES, containing a Clear Exposition of their Principles and Practice, with edition, chiefly rewritten and greatly enlarged.

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NOTES ON THE MINES OF THE RIO TINTO DISTRICT: Containing a DETAILED REPORT upon the MINES and on the MEANS RENDERING THEM MORE PROFITABLE, as well as an ACCOUNT of the PROCESS OF TREATING POOR ORES OF COPPER, successfully used there.

By JOSEPH LEE THOMAS, Assoc.I.C.E.

London: MINING JOURNAL Office, 26, Fleet-street, E.C.

TO COLLIERY AND IRONWORKS PROPRIETORS.—PATENTEES, and ADVERTISERS of every class, who wish to address themselves to the COLLIERY IRONWORKS, MINERAL PROPRIETORS, and OWNERS, &c., of SOUTH WALES, should advertise in the "CARDIFF AND MERTHYR GUARDIAN," established in 1832, and which is the leading JOURNAL in South Wales. A series of advertisements inserted on liberal terms.

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Barrack Contracts for the Supply of Coals, Coke, and Turf, in Great Britain and Ireland.

WAR OFFICE, PALL MALL, LONDON, S.W.

NOTICE IS HEREBY GIVEN, that the Secretary of State for War is PREPARED TO RECEIVE TENDERS for the SUPPLY of COALS, COKE, AND TURF,

at the various Barrack Stations in Great Britain and Ireland for a period of nine months from the 1st July next.

Tenders will not be entertained unless made upon the proper printed form, which may be obtained, with every requisite information, upon application at this office, or to the various Barrack Masters, between the hours of Ten and Four o'clock each day, Sundays excepted.

The tenders must be sent to this office, addressed to the Director of Contracts, marked on the outside, "Tender for Coals, &c.," on or before Saturday, 1st June, 1867, after which day no tender will be received. The Secretary of State for War reserves the right of rejecting any or all of the Tenders.

THOMAS HOWELL, Director of Contracts.

War office, Pall Mall, London, S.W., May 20, 1867.

India Office—Contract for Iron.

BY ORDER OF THE SECRETARY OF STATE FOR INDIA IN COUNCIL.

NOTICE IS HEREBY GIVEN that the DIRECTOR-GENERAL OF STORES FOR INDIA will be READY, on or before Monday, the 3d June next, to RECEIVE PROPOSALS, in writing, sealed up, from such persons as may be willing to SUPPLY—

BEST BRITISH IRON,

And that the conditions of the said contract may be had on application at the India Store Office, Cannon-row, Westminster, where the proposals are to be left any time before Two o'clock P.M. of the said 3d day of June, 1867, after which hour no tender will be received.

GERALD C. TALBOT, Director-General.

India Office, May 27, 1867.

India Office—Contract for Copper.

BY ORDER OF THE SECRETARY OF STATE FOR INDIA IN COUNCIL.

NOTICE IS HEREBY GIVEN that the DIRECTOR-GENERAL OF STORES FOR INDIA will be READY on or before Monday, the 3d June next, to RECEIVE PROPOSALS, in writing, sealed up, from such persons as may be willing to SUPPLY—

BOLT AND SHEET COPPER,

And that the conditions of the said contract may be had on application at the India Store Office, Cannon-row, Westminster, where the proposals are to be left any time before Two o'clock P.M. of the said 3d day of June, 1867, after which hour no tender will be received.

GERALD C. TALBOT, Director-General.

In the Landed Estates Court, Ireland.

QUEEN'S COUNTY.

IN THE MATTER OF THE ESTATE OF NICHOLAS STEPHENSON

MAY, Owner: JOHN HAMILTON, Petitioner.

TO BE SOLD, BY AUCTION, in One Lot, on Friday, the 21st day of June, 1867, before the Hon. Judge Dobbs, at the Landed Estates Court, Inns Quay, Dublin, the LIFE ESTATE of the owner, NICHOLAS STEPHENSON MAY, in the COAL MINES in and under 55 A. 3 R. 31 P. Irish plantation measure; PART of the LANDS of BALLYLEHANE, called MODUBEAGH or BAMBRICK'S MOUNTAIN, together with the ENGINE-HOUSE at TILLY'S PIT, ONE-HALF of said TILLY'S PIT, ONE-HALF the LADDER PIT, and the two DWELLING-HOUSES near Tilly's Pit, all situate in the barony of Ballyadams, and Queen's County.

GEORGE T. HOPKINS, Chief Clerk.

Dated this 17th day of May, 1867.

DESCRIPTIVE PARTICULARS.

The Modubagh Colliery is situate in the townland of Ballylehan Upper, in the barony of Ballyadams, and Queen's County. The portion to be sold contains 55 A. 3 R. 31 P. Irish plantation measure, or thereabouts.

The estate originally contained 183 acres Irish, and the colliery was profitably worked for a long period.

The colliery has been recently partitioned by the Landed Estates Court. It lies adjacent to the well-known Wolf Hill Colliery, which is in full operation, and yields a good supply of free-burning anthracite coal.

In Chancery.

In the MATTER of the STOWE IRON ORE COMPANY (LIMITED), and in the MATTER of the COMPANIES ACT, 1862.

MR. WILLIAM WARD ABBOTT is instructed to SELL, BY AUCTION, at the New Auction Mart, Tokenhouse-yard, London, on Wednesday, the 5th day of June next, at Twelve for One o'clock, pursuant to an Order of the High Court of Chancery made in the above Matter, bearing date the 3d day of May, 1867, and with the approbation of his Lordship the Master of the Rolls, the Judge to whose Court this Matter is attached, certain

MINES ON THE ESTATE OF STOWE NINE CHURCHES,

Near WEEDON, in the county of NORTHAMPTON, near the London and North-Western Railway, about eight miles from Northampton, and connected with the railway by a tramway, comprised in a lease bearing date the 15th of June, 1861, made between the Corporation of the Sons of the Clergy of the one part, and Wordsworth Harrison, Alexander Kelly the younger, Wallace Pedder, John Robinson Pedder, and Whitton Arundell of the other part, whereby the said premises were demised to the said lessee for the term of 14 years, from the 23d January, 1861, at the yearly rent for every acre of the surface of the said land and premises occupied by the lessee, or rendered by them unavailable for farming purposes, of £5, and at the further annual rent after the first six years of the said term of £1000 (such rents being minimum rents and payable quarterly, and subject to royalties on the excess in any quarter of a year of 6d. per ton of iron ore, yellow ochre, and sand, and 4d. per ton of limestone).

The MINES and PREMISES now offered for sale comprise all mines, pits, quarries, veins and beds of ironstone, yellow ochre, and limestone, and sand, in and under all those several closes, pieces, or parcels of land, containing together about 1730 acres, belonging to the Governors of the said Charity, and being the whole of their landed estate in the parish of Stowe Nine Churches aforesaid, and the use jointly with the lessors of the said tramway in connection with the siding on the main line of the said railway.

Particulars will be ready 21 days prior to the sale, and may be had gratis of the Official Liquidator, MR. JOHN WALKER FORD, No. 8, Walbrook, City; Messrs. PARKER, ROOKE, and PARKERS, No. 17, Bedford-row, London; Messrs. YARKER and SALMON, Ulverstone, Lancashire; and of the Auctioneer, MR. WILLIAM WARD ABBOTT, No. 26, Bedford-row, London, and Eynesbury, St. Neots.

ROBERT MARSHALL, Chief Clerk.
PARKER, ROOKE, and PARKERS, No. 17, Bedford-row
(Solicitors for the Official Liquidator).

Dated this 3d day of May, 1867.

WEST SHARP TOR MINE, LINKINHORNE, CORNWALL.

MESSRS. WARD AND CHOWEN WILL SELL, BY AUCTION, on Tuesday, the 4th day of June, 1867, at One o'clock in the afternoon, the undermentioned VALUABLE and EXTENSIVE MACHINERY and MATERIALS, at WEST SHARP TOR MINE, in the parish of Linkinhorne, Cornwall, viz.:-

ONE 50 in. cylinder STEAM PUMPING ENGINE, 9 ft. stroke in the cylinder, and 8 ft. in the shaft, with TWO 11 ton BOILERS, in very good condition.

ONE 14 in. HORIZONTAL WINDING ENGINE, 4 ft. stroke, with ONE 10 ton BOILER.

150 ft. shears, with pulleys, &c., complete; 110 fms. of 11 in. capstan rope, 52 fms. 3/4 in. whm chain, 1 1/2 in. arm capstan, 1 8 arm ditto, 100 fms. of 24 in. flat-rods, best iron, complete; 400 fms. of 5/8 in. 9-16ths, and 1/2 in. whm chain; 60 fms. of 1 1/4 in. bucket rods, 400 fms. tram iron, 180 fms. main shaft rods, with strapping plates and bolts, complete; 200 fms. 7 in. air pipes (tin), 40 fms. cast-iron ditto, 200 fms. ladders, 2 9 in. 20 in. pumps, 11 9 ft. 14 in. pumps, 11 9 ft. 12 in. ditto, 4 9 ft. 12 in. ditto, 15 9 ft. 9 in. ditto, 73 9 ft. 8 in. ditto, 1 9 ft. 12 in. windbores, 1 4 ft. 10 in. flat bottom ditto, 1 6 ft. 9 in. ditto, 1 3/4 ft. 9 in. ditto, 1 4 ft. 8 in. 9 ft. 8 in. sinking windbores, 4 7 in. windbores, various lengths; 2 6 in. sinking windbores, 1 5 in. windbores and matching, 1 10 ft. 12 in. working barrel, 1 9 ft. 7 in. ditto, 1 10 ft. 7 in. ditto, 1 11 ft. 7 in. ditto, 2 6 ft. 14 in. matchings, 8 13 in. matchings, various lengths; 1 bevel matching, 5 8 in. matchings, 1 12 ft. H piece, 1 9 ft. ditto, 3 8 in. ditto, 1 5 in. ditto and doors, 1 13 ft. in. doorpieces, complete; 9 in. ditto ditto, 6 8 in. ditto ditto, 2 1/2 ft. ditto, 1 2 ft. 14 in. plunger ditto, stuffing box and glands complete; 1 11/2 ft. ditto, 12 in. ditto, 8 in. ditto, 9 ft. ditto, 1 9 ft. ditto, 1 10 ft. 8 in. ditto, 1 9 ft. ditto, 1 10 ft. ditto, 1 11 ft. 13 in. pole case, 1 9 ft. 11 ft. 11 in. pole case, 1 9 ft. 10 in. ditto, 1 15 ft. 9 in. ditto, balance and angle bars, with brasses and saddles, complete; 4 shaft-cisterns, shaft gig, surface and underground tram wagons, tram saddles, tram wheels, new and old iron, castings for 2 small balance-bobs, 55 pulleys of various sizes, quantity of old and new brass, poppet heads, 65 shaft rolls, flange pins, 27 sets of strapping plates, 7 pair or cap plates, 1 large sword and joint, quantity of saddles and top locks, machine, wine, and horse whm kibbles, crab winch, 2 sets of blocks, knocker line, 40 in. smiths' bellows, 36 in. ditto, 6 tons of useful iron, 8 tons of scrap iron, staples and glands, pick moulds, pump rings, spanners, the whole of the smiths' tools, carpenter's shop and bench, dressing sheds and tools, new oak and Norway timber, miners' tools and chests, 400 lbs. of powder, 150 coils of safety-fuse, 4 new oak wings to main rods, about 1 ton of boiler steel, miners' dial, 2 oak caps for shears, &c.

The above will afford a good opportunity to mining speculators and others, the machinery and the whole of the materials being of first-rate quality, and in good condition.

The mine is situated about 7 1/2 miles from Liskeard, 8 from Callington, and is close to the Liskeard and Callington Railway, whence the materials could be conveyed either to Liskeard or the port of Looe.

Catalogues, descriptive of each lot, may be obtained on and after the 27th Inst., either of Mr. BUCKLEY, 22, Great St. Helen's, London, E.C.; Capt. W. RICHARDS, on the mine; or of the Auctioneers, Upperton, Milton Abbot, Tavistock, Devon. Refreshments at Twelve o'clock. — May 9, 1867.

FOR FINAL SALE ON WEDNESDAY, MAY 29, 1867,

At Eleven o'clock in the forenoon,

AT WHEAL REETH, NEAR ST. IVES ROAD STATION.

An omnibus will start from Mr. White's, Pendavore Arms, Redruth, at half-past Seven A.M. precisely, calling at Tyack's Hotel, Camborne, Crotch's Hotel, Hayle, to meet the down train at 9 2/4 A.M., and to St. Ives-road station, to meet the up train at 9 29 1/4 A.M.

MR. BURGESS, Land and Machinery Valuer, is instructed to offer for SALE, BY PUBLIC AUCTION, the whole of the valuable ENGINES, MACHINERY, PITWORK, TIN LEAVINGS, and HALVANS, on that extensive tin mine WHEAL REETH, Lelant, near the St. Ives-road Station, comprising:-

Superior 40 in. cylinder pumping ENGINE, 9 ft. stroke, with 2 10 tons boiler and fittings.

30 in. cylinder pumping or man ENGINE, 9 ft. stroke, equal beam, 1 boiler 10 tons, with all necessary attachments for the said man engine.

20 in. cylinder whim ENGINE (double), 8 by 7 ft. stroke, with a first-class 12 ft. cage for wire rope.

30 in. cylinder stamping ENGINE, with 2 12 head axles, 1 4 head Craze's axle.

Superior balance bob at Stephens' 40 inch engine, complete; ironwork of an underground bob, best fagoted straps, flat thread top staples, &c., complete; 1 small balance bob; rod plates, short and long; hammered caps; large hammered sword, 20 ft. long, 3 in. bar; tram iron; shaft tackle; 45 fms. 9 in. pump; 80 fms. 7 in. plunger ditto, 15 fms. 6 in. ditto; 6, 7, 8, and 9 in. plunger bottoms, poles, stuffing boxes and glands in first-rate condition; 3 skips; 1 4 in. pole, stuffing box and gland; fagotted main caps for man engine works; a quantity of staples and glands, perfectly topped and screwed to fit. 5, 6, 7, 8, and 9 in. inch rods; 2, 3, and 4 ft. shears; new tram wagon wheels; flangebolts; chain; shaft rolls; plummer blocks and saddles; tramroad iron; plates and tape; 6, 7, 8, and 9 inch bucket prongs.

STORE ROOM.—Winze kibbles; 5/8 and 7/8 new borer steel; new square point steel shovels, new round ditto; new winze rope and lashing; new gaskets; pick and shovel hilt; tin cans and scoops.

INSIDE STORE.—Casting furnace; candle chest; brass and sundry materials; 2 brass measuring chains; dial and quadrant, by Wilton; new oak winze water barrels; air machine; 2 steam whim kibbles.

SMITHS' SHOP.—Smiths' bellows; 2 anvil, vice; smiths' tools, smiths' crane; forge crane; clack plates; miners' tools; 3 hand screws; drop screw; chests; 2 ft. dry 'ube 45 ft. long.

CARPENTERS' SHOP.—Carpenters' bench 30 ft. long; double sawpit and frame; air machine; cross-cut saw; pit saw; new and old barrels; sundry casting patterns; old junk; several tons of wrought and cast-iron; rod bolts perfectly topped; sundry other useful iron, new iron; 2 large beams and scales; miners' chests and sundry wood.

SAMPLING HOUSE.—Bruising plates, bruising hammers and dry pans; trying pots and tools; tin scales, &c.

EASTERS' MINT AND STAMPS.—Horned whim, 3 sheaves, 2 kibbles; horse-whim chain, shaft tackle.

TIN DRESSING FLOORS.—No. 1 shed, 40 ft. by 12 ft. 4 hand frames, 10 ft. by 5 1/2 ft. and flooring; dressing tools, 6 trucks, 3 slime pits and divisions; —No. 2 shed, 36 ft. by 12 ft. 3 hand frames; —No. 3 shed, 15 ft. by 12 ft. 1 tin frame; 6 and 8 inch leading launders to ditto; 12 self-acting frames, 11 feet long 5 1/2 wide; broom machines; —No. 4 dressers' shed: 2 flutes to large catch pits; 12 ft. water wheel, 16 in. breast; launders and stands; driving chain and 8 sheaves; 9 trucks and divisions; receiving pits and flushets; 10 trucks; 10 ditto; stamps strips; 1 1/2 in. flat rods for driving trunks; —No. 5 shed, 40 ft. by 12 ft. 3 hand frames; 8 self-acting frames, 11 ft. by 5 1/2 ft. 200 fms. feed launders, 6 in. and upwards; —No. 6 shed, 40 ft. by 15 ft. 7 hand frames, 11 ft. long 5 1/2 wide; —No. 7 shed, 30 ft. by 14 ft. Driving gear and chain for bobbles; 2 stands and 15 sheaves, 1 ft. to 2 ft. (light). The engines and boilers having been fed and condensed with clear spring water, will be found in superior condition.

All the tin leavings and halvans belonging to the adventurers of Wheal Reeth Mines in one lot or together, with the stamping-engine and appliances.

This mine has been returning large quantities of very rich tin for over 20 years.

For inspection or treaty apply to Mr. BUNNIES, land and machinery valuer, Barncoose, Redruth. Refreshments as usual.

Dated Barncoose, Redruth, May 14, 1867.

AN INDEX TO MINERALOGY:

By T. A. READWIN, F.G.S., F.S.S., &c.

pp. 52. Price One Shilling.

London: E. and F. N. SONS, 48, Charing-cross. Manchester: John Heywood, Deansgate.

This Index is an alphabetical list of about 2500 mineral substances, with concise references to their composition, synomyms, and place in the British Museum.

GUIDE TO INVESTORS.—Mr. SPARGO'S "Guide to Investors"

for the present month contains Leading Articles on the Causes of Depreciation in the Value of Mining Shares; the Bank of England and Banking; Mines at Home and Abroad; a Tabular Statement of Banking, Mining, and other Companies; City and Commercial Facts and Incidents; and a Price List of Shares in Banks, Canals, Railways, Bridges, and Finance Companies. It also contains Rate of Discount at Home and Abroad; together with necessary detailed information connected with the Stock and Share Markets, Mines, and Miscellaneous Companies. The City Article affords the most recent and authentic information concerning the stock, share, and produce markets.

244 and 256, Gresham House, Old Broad-street, London, E.C., May, 1867.

Dated Registrar's Office, Truro, May 23, 1867.

10

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Devon.

IN the MATTER of the COMPANIES ACT, 1862, and of the SWINCOMBE VALE MINING COMPANY (LIMITED).—The Registrar of this Court has appointed WEDNESDAY, the 5th day of June next, at Eleven o'clock A.M. at the Registrar's Office, Truro, to SETTLE the LIST OF CONTRIBUTORIES of the ABOVE-NAMED COMPANY now made out and deposited at the said office. WILLIAM MICHELL, Registrar of the said Court. Dated this 23d day of May, 1867.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WENDRON CONSOLS MINING COMPANY.—TO BE SOLD, under the direction of the Registrar of the said Court, by PUBLIC AUCTION, on MONDAY, the 3d day of June next, at Eleven o'clock in the forenoon, at the WENDRON CONSOLS MINE, in the parish of Wendron, within the said Stannaries, either together or in lots, the MINE SETT or GRANT of the said company and the undermentioned MINING MACHINERY AND MATERIALS, &c.—viz.: Two boilers, capstans, angle bows, parts of V bows, wood and iron staples, glands, and rod plates; one 70 in. and one 50 in. STEAM ENGINE with rod and wood-work; shears and shovels complete; capstan bows and stands complete; steam whim engine 18 inch, with fly wheel, and one boiler 7 tons; whim, cage, horse-whim, and shaft tackle; chain, bob centre, straps and block; horse-whim, 2 shaft tackles, stamp lifts, cams and tongues, grate plates and braces; 15 boxes and 5 clocks, new and old kibbles, smiths' tools, ladders, rope, stairs with handrail, doors and door cases, sashes and frames; and a variety of other articles and effects in general use in mines.

Further particulars may be had on application to Mr. JOHNS, the Officer of the Court in possession.

HODGE, HOCKIN, AND MARRACK, solicitors, Truro.

Dated Registrar's Office, Truro, May 15, 1867.

10

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the EAST BASSET AND GRYLLS MINING COMPANY.—By an Order, made by His Honour the Vice-Warden of the Stannaries in the above matter, dated the 20th day of May instant, on the petition of Thomas Phillips (of Tuckington, St. Helston, in the county of Cornwall), a contributor of the said company, it is ORDERED that the said EAST BASSET AND GRYLLS MINING COMPANY should be WOUND-UP by this Court under the provisions of the Act, 1862. JOSEPH ROBERTS, Truro (solicitor for the petitioners).

Dated May 22, 1867.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the ST. DAY UNITED MINING COMPANY.—By an Order, made by His Honour the Vice-Warden of the Stannaries in the above matter, dated the 18th day of May instant, on the petition of John Solomon Bickford (of Tuckington, St. Helston, in the county of Cornwall), a contributor of the said company, it is ORDERED that the said ST. DAY UNITED MINING COMPANY should be WOUND-UP by this Court, under the provisions of the Companies Act, 1862.

JOSEPH ROBERTS, Truro (solicitor for the petitioners).

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the ST. DAY UNITED MINING COMPANY.—TO BE SOLD, under the direction of the Registrar of the Court, on Tuesday, the 11th day of June next, at Twelve o'clock at noon, subject to such conditions as shall be then and there produced, in One Lot, the several DEMISES or GRANTS, by virtue of which the mining operations of the said company have been carried on, and the undermentioned MACHINERY, PLANT, WORK, and MATERIALS, &c.—

ONE 55 in. PUMPING ENGINE, with FOUR BOILERS, 11 tons each.

ONE 50 in. PUMPING ENGINE, with FIVE BOILERS, 11 tons each.

ONE 45 in. PUMPING ENGINE, with TWO BOILERS, 12 tons each.

ONE 36 in. STAMPING ENGINE, with 4 stamps axles, carrying 16 heads, and flywheel complete, with TWO BOILERS, 12 and 7 tons.

ONE 26 in. WINDING ENGINE, with steam capstan attached, together with ONE 10 in. capstan.

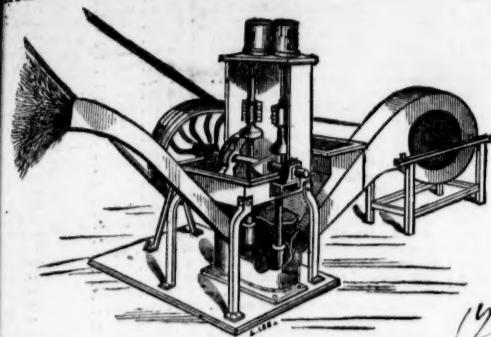
ONE 26 in. WINDING ENGINE, and crusher attached, with ONE BOILER, 7 tons.

ONE 26 in. ROTARY ENGINE, with sawing machine, and ONE BOILER, 7 tons.

ONE BOILER, not in use, 10 tons, and a tube of boiler, 28 ft. long.

1 calciner, 5 ovens, 4 round bushes, skips, trunks, frames, &c.; 5 pairs of shears, 200 fms. of 15 inch capstan-rope, 300 fms. of 14 in. ditto, 120 fms. of 10 in. ditto, 120 fms. of 15 in. ditto, 120 fms. of 10 in. ditto, 120 fms. of 15 in. ditto, 120 fms. of 10 in. ditto, 120 fms. of 15 in. ditto, 120 fms. of 10 in. ditto,

CHILD'S PATENT
ATMOSPHERIC ORE STAMP AND QUARTZ CRUSHER.



THIS is an IMPROVED STAMP, and will give as many blows per minute as an ordinary 10-stamp mill, and of far greater force, giving an effective blow of from 150 to 200 tons per minute, and will crush any known material into an impalpable powder, saving every particle of the product for future operations—a result not before obtained by any stamping process. Greater economy is combined than by any other known method. The patentee has tested a machine near his office, where he invites (by appointment) experienced practical miners, engineers, chemists, metallurgists, and all others interested, to inspect its results. Every facility will be given for experiments upon present ores, and all other substances to be crushed.

or particulars, address—A. B. CHILDS.

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PRENTICE'S GUN COTTON
COMPRESSED CHARGES
FOR MINING AND QUARRYING.

The principle thus introduced insures the most perfect attainment of the points essential for the safety and stability of the material, at the same time securing the highest effective power. A charge of any given size exerts six times the explosive force of gunpowder.

The enormous power confined in a short length at the bottom of the hole allows of a much greater amount of work being placed before each charge, saving considerably in the labour of drilling.

Charges are made of every diameter required, the length varying with the meter. Any number may be placed in a hole. Each charge is fully equal to fifth of a pound of powder. PRICES.

Per case, containing 500 charges of any diameter 35s.

Per half case, containing 250 charges of any diameter 18s.

Per quarter case, containing 125 charges of any diameter 9s.

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PATENT FLAT AND ROUND WIRE ROPES.

From the very best quality of charcoal iron and steel wire.

PATENT FLAT AND ROUND HEMP ROPES.

FOR RIGGING, SIGNAL AND FENCING STRAND, LIGHTNING CONDUCTORS, STEAM PLOUGH ROPES (made from Webster and Horsfall's patent steel wire), HEMP, FLAX, ENGINE YARN, COTTON WASTE, TARPAULING, OIL SHEETS, BRATTICE CLOTHS, &c.

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ROPE FOR MINING, RAILWAY, AND SHIPPING PURPOSES.

MANILA ROPE OF SUPERIOR QUALITY, FIFTY PER CENT. STRONGER
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THE WEIGHT OF FIRST QUALITY WIRE, and the HIGHEST STANDARD
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BOLTS, WASHERS, COACH SCREWS, SPIKES, SET PINS,
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ENGINEERS' AND SHIPBUILDERS' FORGINGS, SMITHS' WORK,
and every description of SHIPS' FASTENINGS.

WORKS, SEACOMBE, NEAR BIRKENHEAD.

OAL CUTTING MACHINERY.—
The WEST ARDSLEY COMPANY having, by recently patented improvements, perfected their coal cutting machinery, worked by compressed air, are READY TO MAKE CONTRACTS for the CONSTRUCTION and USE of MACHINES.

The results of twelve months' experience in the working of these machines, by West Ardsley Company, have proved most satisfactory, their use being found to HEAPEN THE COST and IMPROVE the average SIZE of the COAL, to HITEN THE LABOUR, and also to MODIFY THE SANITARY CONDITION of the MINE.

Communications to be made to Messrs. FIRTH, DONNISTHORPE, and BOWER, 8, Britannia-street, Leeds.

NOTICE.—The WEST ARDSLEY COMPANY, having reason to believe that their patents are being infringed upon, hereby give notice that they WILL TAKE LEGAL PROCEEDINGS AGAINST ALL PARTIES who may MAKE FOR SALE, or USE ANY MACHINERY in the construction of any such INFRINGEMENT is MADE.

THE CORNWALL BLASTING POWDER COMPANY,
ST. ALLEN GUNPOWDER MILLS, TRURO,

MANUFACTURERS OF PATENT BLASTING POWDER,
ORDINARY GUNPOWDER, AND WATERPROOF SAFETY
BLASTING CARTRIDGES.

CORNWALL BLASTING POWDER COMPANY SOLICIT PARTICULAR ATTENTION to their PATENT BLASTING POWDER, which has been fully tested by time, and the growing estimation in which it is held by working men proves its great superiority over ordinary gunpowder.

POSSSESSES the following advantages:—

WEIGHT being about TWENTY-FIVE PER CENT. LESS than ORDINARY GUNPOWDER, and EQUAL in STRENGTH, bulk for bulk, an IMMEDIATE SAVING is EFFECTED on the score of CONSUMPTION.

Creates, on explosion, only about ONE-HALF as much SMOKE as ORDINARY GUNPOWDER, and this smoke being of a lighter nature soon passes away, and an IMPORTANT SAVING is thus EFFECTED on the score of TIME.

IS ADAPTED to ANY CLIMATE, does NOT BECOME WASTEFUL by

EXPOSURE to the ATMOSPHERE, is NOT MORE DANGEROUS in use than ORDINARY GUNPOWDER.

Testimonials forwarded on application.

ITRO-GLYCERINE, OR NOBEL'S PATENT BLASTING

OIL.—THE EXPLOSIVE FORCE of this BLASTING OIL is TEN TIMES

of GUNPOWDER, and the ECONOMY and SAVING in TIME, LABOUR,

COST in removing granite and hard rock, in sinking shafts, driving tunnels, and opening forward in close ends is immense.

It will not explode from a spark or fire, but from concussion alone, and is consequently much less dangerous than gunpowder or gun-cotton.

Being heavier than water it sinks to the bottom of a wet hole, no other tamper

than water being required.

The charge of this blasting oil, which is now being used with wonderful effect

all the largest slate quarries in North Wales, will displace as much slate rock

four or five charges of gunpowder; and its great force, acting on a large

quantity of good slate rock, shales and displaces it at the natural joints, or

cracks, without damaging the slabs nearly so much as the more numerous

cracks from any other blasting material would do.

This invaluable quarrying agent may now be obtained from Messrs. W. & J. Co., Carnarvon, sole consignees from the patentee.

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£1000 in case of Death, or £6 per week while laid up by Injury, caused by

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WILLIAM J. VIAN, Sec.

THE MINING JOURNAL.

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IMMENSE SAVING OF LABOUR.
TO MINERS, IRONMASTERS, MANUFACTURING CHEMISTS, RAILWAY COMPANIES, EMERY AND FLINT
GRINDERS, MCADAM ROAD MAKERS, &c., &c.

BLAKE'S PATENT STONE BREAKER,
OR ORE CRUSHING MACHINE,
FOR REDUCING TO SMALL FRAGMENTS ROCKS, ORES, AND MINERALS OF EVERY KIND.

It is rapidly making its way to all parts of the globe, being now in profitable use in California, Washoe, Lake Superior, Australia, Cuba, Chili, Brazil, and throughout the United States and England. Read extracts of testimonials—

The Parys Mines Company, Parys Mines, near Bangor, June 6.—We have had one of your stone breakers in use during the last twelve months, and Captain Moreton reports most favourably as to its capabilities of crushing the materials to the required size, and its great economy in doing away with manual labour. For the Parys Mining Company, JAMES WILLIAMS.

H. R. MARSDEN, Esq.

Edton Emery Works, Manchester.—We have used Blake's patent stone breaker made by you, for the last 12 months, crushing emery, &c., and it has given every satisfaction. Some time after starting the machine a piece of the moveable jaw's about 20 lbs. weight, chilled cast-iron, broke off, and was crushed in the jaws of the machine to the size fixed for crushing the emery.

H. R. MARSDEN, Esq. TROS. GOLDSWORTHY & SONS.

Alkali Works, near Wednesbury.—I at first thought the outlay too much for so small an article, but now think it well spent. WILLIAM HUNT.

Welsh Gold Mining Company, Dolgelly.—The stone breaker does its work admirably, crushing the hardest stones and quartz. WM. DANIEL.

Our 15 by 7 in. machine has broken 4 tons of hard whinstone in 20 minutes, for fine road metal, free from dust. MESSRS. ORD AND MADDOX, Stone and Lime-Merchants, Darlington.

Kirkless Hall, near Wigan.—Each of my machines breaks from 100 to 120 tons of limestone or ore per day (10 hours), at a saving of 4d. per ton. JOHN LANCASTER.

Ovoca, Ireland.—My crusher does its work most satisfactorily. It will break 10 tons of the hardest copper ore stone per hour. WM. G. ROBERTS.

General Fremont's Mines, California.—The 15 by 7 in. machine effects a saving of the labour of about 30 men, or £75 per day. The high estimation in which we hold your invention is shown by the fact that Mr. Park has just ordered third machine for this estate.

SILAS WILLIAMS.

For circulars and testimonials, apply to—
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MEADOW LANE, LEEDS,
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Some unprincipled manufacturers having made such close imitations of our Trade Mark as cannot fail to deceive the public, we have deemed it advisable to alter our Mark as here shown. It will be observed that the alteration consists in the omission of the words—“DEPOTS AT PARIS AND ROTTERDAM,” and the addition of the words—“MORGAN'S PATENT.”



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Obtained the PRIZE MEDALS at the ROYAL EXHIBITION of 1851; at the INTERNATIONAL EXHIBITION of 1855, in London; at the IMPERIAL EXHIBITION held in Paris, in 1855; and at the INTERNATIONAL EXHIBITION, in Dublin, 1863.

BICKFORD, SMITH, AND CO., of TUCKINGMILL, CORNWALL, MANUFACTURERS OF PATENT SAFETY-FUSE, having been informed that the name of their firm has been attached to the trade and public to the following announcement:—

EVERY COIL of FUSE MANUFACTURED by them has TWO SEPARATE THREADS PASSING THROUGH the COLUMN of GUNPOWDER, and BICKFORD, SMITH, AND CO. CLAIM SUCH TWO SEPARATE THREADS as THEIR TRADE MARK.

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PORTABLE, SINGLE, and DOUBLE BARREL, and other PUMPS, and PORTABLE STEAM ENGINES.

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ANY OF THE ABOVE CAN BE HAD ON HIRE OR PURCHASE.

Full information, Drawings, Price Lists, &c., relating to the above, and to Hydraulic Machinery of all descriptions—Crabs, Pulleys, Blocks, and Hoisting Tackle of superior manufacture—may be had on application.

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THOMAS TURTON AND SONS,
MANUFACTURERS OF

CAST STEEL for PUNCHES, TAPS, and DIES,
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CAST STEEL PISTON RODS, CRANK PINS, CONNECTING RODS, STRAIGHT and CRANK AXLES, SHAFTS and

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Just published, post free for two stamps, WONDERFUL MEDICAL DISCOVERY, demonstrating the true causes of Nervous, Mental, and Physical Debility, Loss of Appetite, Pains in the Back, Spermatorrhœa, &c., with plain directions for perfect restoration to health. Sent free on receipt of two stamps, by W. HILL, Esq., M.A., Berkeley House, South-crescent, Russell-square, London, W.C.

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THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Pershare.	Last paid.
500 Alderley Edge, c, Cheshire*	10 0 0 ..	..	..	8 12 8 .. 0 3 0	Jan. 1867		
200 Batailack, t, c, St. Just	91 5 0 ..	..	..	488 15 0 .. 0 5 0	Mar. 1866		
10000 British slate Company	10 0 0 ..	..	..	9 per cent.	..	..	..
4000 Brookwood, t	11 0 0 ..	..	..	0 5 0 .. 0 2 6	Sept. 1866		
10000 Bronfloyd, t, Cardigan*	12 0 0 ..	..	..	8 7 0 .. 0 6 0	Aug. 1866		
6400 Cashwell, t, Cumberland	2 10 0 ..	..	..	0 1 6 .. 0 1 6	Aug. 1866		
9100 Cargoll, s-l, Newlyn	15 5 7 .. 12	..	..	13 15 0 .. 1 0 0	Feb. 1866		
1867 Cwm Erynn, t, Cardiganshire*	7 10 0 ..	..	..	22 18 0 .. 1 0 0	April 1867		
128 Cwmystwyth, t, Cardiganshire*	60 0 0 ..	..	..	379 19 0 .. 3 0 0	April 1867		
280 Derwent Mines, s-l, Durham	300 0 0 ..	..	..	169 10 0 .. 2 10 0	Mar. 1867		
1024 Devon Gt. Consols, c, Tavistock*	1 0 0 .. 400	390 400	1060	9 0 .. 6 0 0	May 1867		
358 Dolcoath, c, t, Camborne	128 17 6 ..	..	..	825 10 0 .. 4 0 0	April 1867		
6144 East Caradon, c, St. Cleer	2 14 6 .. 55	53 54	14	9 6 .. 0 2 0	April 1867		
300 East Lanner, t, Cardiganshire	32 0 0 ..	..	..	140 10 0 .. 2 0 0	Mar. 1867		
128 East Pool, t, c, Pool, Illogan	24 5 0 ..	..	..	397 10 0 .. 5 0 0	Mar. 1867		
5000 East Rosewarne, c, t, Gwennar	2 15 0 ..	..	..	0 10 0 .. 1 6 0	Jan. 1866		
1906 East Wheal Lovell, t, Wendron	3 9 0 .. 9	8 1/2 9	2 12 0 .. 0	0 7 6	April 1866		
2500 Foxdale, t, Isle of Man*	25 0 0 ..	..	..	70 0 .. 0 10 0	Mar. 1867		
5000 Frank Mills, t, Christow	8 18 6 ..	..	..	3 5 6 .. 0 5 0	Feb. 1866		
5000 Great Laxey, t, Isle of Man*	4 0 0 .. 18 1/2 17 1/2	18 1/2 18 1/2	6 5 0 .. 0 10 0	0 10 0	Mar. 1867		
5000 Great Wheal Vix, t, Helston	40 0 0 .. 18 1/2 17 1/2	11 5 6 .. 0 7 6	..	..	April 1867		
1024 Herodsfoot, t, near Liskeard	8 10 0 .. 55	34 86	40 10 0 .. 1 10 0	..	Feb. 1867		
4000 Hinstone, Down, c, t	5 10 6 ..	..	..	0 10 0 .. 0 5 0	April 1866		
4000 Ilseburn, t, Cardiganshire	18 15 0 ..	..	..	489 10 0 .. 3 0 0	Mar. 1867		
3000 Mine Barley, c, Caradon	4 10 6 .. 5	4 1/2 4 1/2	3 14 0 .. 0 3 0	..	April 1867		
3000 Minera Boundary, t, Wrexham*	1 0 0 ..	..	..	0 13 0 .. 0 3 0	Mar. 1866		
18000 Minera Mining Co, t, Wrexham*	25 0 0 ..	..	..	212 13 0 .. 4 0 0	May 1867		
20000 Mining Co, of Ireland, c, t, l	7 0 0 .. 18	17 17 1/2	..	..	..	..
40000 Mwynd Iron Ore*	3 5 0 ..	..	..	0 6 6 .. 0 2 6	Mar. 1866		
20000 Parry Mines, c, Anglesey*	50 0 0 ..	..	..	157 10 0 .. 5 0 0	Jan. 1867		
6000 Prosper United, t, c, St. Hilary	8 14 0 .. 3	..	..	0 5 0 .. 0 5 0	Feb. 1867		
1120 Providence, t, Uly Lelant	10 6 7 .. 31	30 32	82 7 6 ..	0 10 0	Feb. 1867		
512 South Caradon, c, St. Cleer	1 5 0 .. 350	340 360	550 10 0 .. 6 0 0	..	Mar. 1867		
6000 South Darren, t*	3 6 6 ..	..	..	0 5 6 .. 0 2 6	June 1866		
6000 Tincroft, c, t, Pool, Illogan	9 0 0 .. 15	14 15	18 11 0 .. 0 5 0	..	Jan. 1867		
3000 W. Chiverton, t, Perranzabuoe	10 0 0 .. 66	65 67	19 7 6 .. 0 2 0	..	May 1867		
400 West Wheal Seton, c, Camborne	47 10 0 .. 140	140 145	479 0 .. 3 0 0	..	April 1867		
512 Wheal Basset, s-l, Illogan	5 2 6 .. 70	67 19	622 0 .. 1 0 0	..	Oct. 1866		
1024 Wheal Friendship, c, Tavistock	20 0 0 ..	..	..	300 10 0 .. 0 10 0	Nov. 1866		
4295 Wheal Kitty, t, St. Agnes	5 4 6 ..	..	..	3 1 0 .. 0 2 0	Feb. 1867		
1024 Wheal Mary Ann, t, Menheniot	8 0 0 .. 15	14 15	18 11 0 .. 0 5 0	..	Jan. 1867		
1024 Wheal Trelawny, s-l, Liskeard	5 17 0 ..	..	..	0 10 0 .. 0 10 0	Feb. 1867		
17000 Wicklow, c, t, Wicklow	2 10 0 ..	22 22 1/2	46 15 0 .. 1 0 0	..	April 1867		

FOREIGN DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
5000 Cape Copper Mining*	7 0 0 .. 8	7 1/2 8 ..	2 12 6 ..	0 10 0 ..	April 1866
100000 Don Pedro No. del Rey, Brazil*	9 14 0 .. 8	3 3/4 3 1/2	0 2 9 .. 0 2 0	..	Mar. 1866
20000 Fortuna, t, Spain*	2 0 0 .. 21	..	1 5 4 .. 0 2 0	Oct. 1867	
70000 English and Australian, c	2 10 0 .. 34	5 1/2 7 1/2	1 13 0 .. 0 1 0	Feb. 1867	
20000 Gen. Mining Assoc., Nova Scotia	20 0 0 ..	..	17 19	22 0 .. 1 0 0	June 1866
10000 Gonessa, t, [5000 £ pd., 5000 £ pd.]	..	..	..	7 1/2 per cent. per annum.	
15000 Linares, t, Spain*	3 0 0 ..	..	..	11 6 4 .. 0 5 0	Jan. 1865
30000 Pestarena, g*	2 10 0 .. 81	2 1/2 3	0 2 6 .. 0 2 6	Mar. 1867	
50000 Panulicillo, c*	3 0 0 .. 23	2 2 1/2	10 per cent.	..	Yearly.
10000 Pontgwaith, s-l, France	20 0 0 .. 81	..	4 3 2 .. 1 2 6	Dec. 1866	
100000 Port Phillip, g, Clunes	1 0 0 .. 78	3 1	0 16 6 .. 0 1 0	Jan. 1867	
120000 Scottish Australian Mining Co.	1 0 0 .. 1	..	7 1/2 per cent.	..	Mar. 1867
11000 St. John del Rey, Brazil*	15 0 0 .. 57	60 62	72 15 0 .. 4 0 0	Dec. 1866	
50000 Victoria (London) [25000 £ pd., 25000 £ pd., 12s. 6d. pd.]	..	..	0 9 0 .. 0 1 0	..	Jan. 1866
40000 West Canada Mining Company*	1 0 0 ..	..	0 19 6 .. 0 2 6	May. 1866	

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
25000 Alamillos, t, Spain*	2 0 0 ..	..	1 1/2 4	..	Fully pd.
100000 Anglo-Brazilian, g*	10 0 0 ..	..	1 1/2 1	..	..
20000 Australian, c, South Australia*	7 7 6 ..	..	1 1/2 1	..	Nov. 1866
40000 Brittany Silver-Lead Mines, France* [15750 £ pd.]	5 0 0 ..	..	..	..	..
2464 Burras Burra, c, South Australia*	5 0 0 ..	..	31 1/2	..	..
25000 Capula, s, Mexico*	1 12 0 ..	..	3 1/2 1/2	..	Aug. 1866
30000 Chontales, g, Nicaragua*	8 10 0 ..	2 1/2 3	2 1/2 3	..	Feb. 1867
12000 Cobre Cooper Company, c, Cuba*	43 10 0 ..	..	..	..	May 1867
10000 Copiapo Mining Company, Chile*	16 10 0 ..	..	..	..	..
10000 Copiapo Smelting, Chile	10 0 0 ..	..	..	..	..
40000 Copper Miners Co, South Australia* [150 £100 pd., 150 £70 pd.]	..	..	..	..	..
25000 East Del Rey, g, Brazil*	2 12 0 ..	..	..	..	Nov. 1866
15000 El Chico Silver Mining and Reduction Company	5 0 0 ..	..	..	..	..
8000 English and Canadian Mining Company	5 0 0 ..	..	..	..	..
50000 Frontino and Bolivia, g, New Granada*	12 12 6 ..	..	8 10 10	..	Dec. 1866
80000 Great Northern, c, South Australia	11 11 6 ..	..	..	..	..
10000 Great Barrier Land, Mining, &c, New Zealand	5 0 0 ..	..	..	..	..
68000 Kapunda Mining Co, Australia*	1 0 0 ..	..	..	..	..
7272 Lusitanian (Portugal)*	3 0 0 ..	..	..	..	..
80000 Maritipa	12 0 6 ..	..	..	..	Jan. 1867
12500 Nerbudda Coal and Iron* [5000 £ pd., 6500 £ pd.]	..	..	4 1/2 3 1/2	..	Aug. 1865
30000 Nova Scotia Land and Gold*	1 15 0 ..	..	4 1/2 4	..	Aug. 1866
15000 Otea, c, New Zealand*	2 0 0 ..	..	..	..	..
6000 Peel River Land and Mineral*	100 0 0 ..	..	37 40	Stock.	
51000 New Quebrada, c, Venezuela*	3 10 0 ..	1	..	..	..
10178 Rhenish Consolidated, t [6000 £ pd., 4178 £10s. pd.]	..	..	..	..	May. 1866
50000 Ross, Grande, g, Brazil*	0 10 0 ..	..	..	..	Mar. 1867
15000 San Pedro del Monte, s, Mexico*	4 0 0 ..	..	..	..	Sept. 1866
10000					